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HYGEIA

A JOURNAL OF INDIVIDUAL AND COMMUNITY HEALTH

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A JOURNAL OF INDIVIDUAL AND COMMUNITY HEALTH

Published by the American Medical Association
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VOLUME 3 — DECEMBER, 1925 — NUMBER 12

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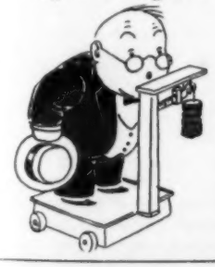
THE JANUARY ISSUE

THE DOG'S GIFT TO THE RELIEF OF HUMAN SUFFERING. *By Dr. Walter B. Cannon.*

WHAT TO DO FOR STAMMERING AND STUTTERING. *By Dr. Meyer Solomon.*



The new department "I REDUCE," *which was started last month, has not gone into permanent eclipse. It will reappear in the January issue. Write* HYGEIA *about your reducing problems.*

Contributions to HYGEIA *are considered, and, if accepted, paid for. Stamps for the return of unaccepted manuscripts should be enclosed. All communications should be addressed to* HYGEIA, *535 North Dearborn Street, Chicago, Illinois.*

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TOMATOES were first found in South America. Not many years ago, people thought them poisonous and did not dare to eat them. Now they are known to be among the best of all the vegetables, and their juice is given even to small babies.

*W*hat in the garden
Is better food than this?
The healthful fine tomato,
No little child must miss.
"The beautiful Tomato;
The luscious ripe Tomato."

*W*hat for our dinner
Is tastier to try?
Roger, Georgia, Helen
And even Baby cry:
"I'd like a big Tomato,
A luscious ripe Tomato."

Suggestions for Coloring This Page with Crayons

Make the hat yellow; the shirt light blue; trousers brown; flesh light tan; stripes in hat red; sash red and tan; basket dark brown; vines green.

Duplicates of this poster mailed to any address, postpaid, at 40 cents a dozen. No orders for less than a dozen.

Eye Hazards in Industry

LOUIS RESNICK

A YEAR or two before the war Joe Slotzky applied for work at a steel mill in the Pittsburgh district. He got the job after a few minutes' conversation with the foreman of the open hearth department; it did not take the foreman long to see that Joe was an expert puddler. But after he had been at work exactly five days the foreman noticed that Joe had "red and running" eyes—that's what steel workers called trachoma in those days—and so Joe was given his pay and told to "get out o' here."

Joe didn't worry—much. That sort of thing had been happening to him for nearly three years. He would get a job, and after a week or two—sometimes a month—he would be let out on "account o' sore eyes." It's catching, the foremen said, and they had trouble enough getting out the scheduled tonnage without having a "pinkeye epidemic" slowing things up—to say nothing of "getting in bad with the insurance department." Joe didn't worry much; it was almost as easy for him to get a job as to lose one. He would go home, use an eyewash he had picked up in a drug store, pull his big cap down over his eyes so they could not be clearly seen in a murky foundry, and apply for a job at the nearest mill. In two years Joe had worked in more steel mills than in the fifteen years before his eyes "got red and sandy." In each mill he left a stream of trachoma germs on roller towels, door knobs, and faucet handles for other workmen to pick up and rub into their eyes or to carry home. That is why employment managers everywhere were on the lookout for Joe and his kind and why it was so hard for any one with an infectious eye disease to get a new job or to hold an old job, once his condition was discovered.

Joe knew that he was a good workman; he knew that his red, sore eyes were the cause of his losing so many jobs, but Joe was never told that he had trachoma and that this eye disease was a menace to himself and to his fellow workers.

Trachoma is the eye disease with which industry is most seriously concerned because of its highly contagious nature. It begins with slight redness and discharge from the eyes. At first there is little pain, but there is a feeling of something under the lid, scratching the eye. If properly treated at this stage, a complete cure is possible. But if neglected, trachoma soon will so impair the sight that the patient can do no work. Ulceration follows and often causes total blindness. Severe pain sometimes makes it necessary to remove the eye.

Because of the communicable nature of the disease and because its seriousness is little appreciated by many classes of laboring people —being called merely "red sore eyes" by many of them—the existence of even a single case in any industrial community exposes that community to the danger of an epidemic. Following the outbreak of a trachoma epidemic among steel workers and their families in Youngstown, Ohio, 242 cases were discovered and treated within four months, by the Youngstown Sheet & Tube Company. In a survey in southern Illinois a few years ago sixteen cases of trachoma were found within two blocks in one mining town.

Recognizing the highly communicable nature of trachoma, most employers have long been on their guard against the disease. Their method was for many year—and undoubtedly still is today in some plants—to refuse employment to any applicant known to have trachoma and to discharge at the first

A family of trachoma victims, all infected from the child on the left, whose infection came from a roller towel at home on which the father left germs picked up in his place of work.

opportunity any man found to be a victim of the disease. Little effort was made either to cure or to prevent the spread of the disease, except by discharge of those afflicted.

These men went from one steel plant to another, assumed aliases, learned in some cases to conceal the true condition of their eyes, and eventually found employment in one of the many plants of the steel corporations. In time the condition of their eyes would be discovered, they would be discharged, and would repeat the process. The technique of employing men was not then so highly developed as it is today. A steel worker with trachoma, and a persistent spirit, could within a period of a year work for three or four weeks in each of a dozen steel plants, and at the end of that time start all over again and make the rounds of the same plants.

This attempt to keep trachoma out of the plant defeated its own purpose. The trachoma carriers who were able by hook or crook to secure a short-time employment in one plant after another exposed a greater number of workmen to the disease than if they had been employed permanently in any one plant. The attempt was expensive, for hiring and firing has always cost more than sanitation, medication and education.

The New Attitude of Industry

Within recent years, however, a new attitude toward trachoma and a new method of eliminating it from the ranks of industrial workers have been developed by those progressive employers who are giving serious attention to the health and safety of their employees. The policy of the United States Steel Corporation in dealing with trachoma is characteristic of this new idea. Years ago the steel corporation, in common with other employers, refused to consider for employment a workman recognized as a trachoma victim, and scores of men were turned away at the gate for this reason.

The policy of the corporation today—and this has been its policy for a number of years—is to discover every case of trachoma among its employees and applicants for employment, and in doing this they serve another purpose, and that is to cure the disease in each individual case when it is possible. During the outbreak at Youngstown, in 1914, the Steel & Tube Company treated every case of trachoma brought to its attention, women and children as well as men, irrespective of whether the father or husband was a steel worker.

Every employment manager and employment clerk in the subsidiary companies of the corporation has instructions for the detection of trachoma when hiring. Foremen, superintendents, and other supervisory officers are constantly on the alert for symptoms of trachoma among the men in their respective departments. Every paymaster makes it a part of the routine to glance at the eyes of each workman as he passes out the pay envelope to him, and to make a note of the check number of every workman who seems to have any trouble with his eyes. The paymaster each day reports to the medical department the check numbers of the men whose eyes seemed diseased, and on the following work day these men are instructed to report to the medical department for examination. When trachoma is found, every possible effort to cure it is made by the medical department of the corporation.

Cleanliness the Best Preventive

The means that should be taken to prevent the spread of trachoma are the ordinary means that should be taken to avert the spread of any communicable disease. The first step in this direction should be the elimination of the common towel in any form and the provision of sufficient and thoroughly sanitary washing facilities. Although the old-fashioned roller towel has been legislated out of existence in most states, and although few employers deliberately provide roller towels for their employees, thousands of plants still tolerate the use of a common towel by a number of workmen. Many other plants, through their failure to pro-

Photos courtesy of the National Committee for Prevention of Blindness

A group of the patients treated daily by a steel company during a trachoma epidemic. The company gave expert medical treatment to all trachoma sufferers without charge.

vide inexpensive individual paper towels and through their general neglect of health education, encourage the use of common towels. I have seen in recent years roller towels in use in newspaper offices, printing plants, machine shops, general business offices and in one of the newest public schools in New York City.

Change in Occupation May Aid

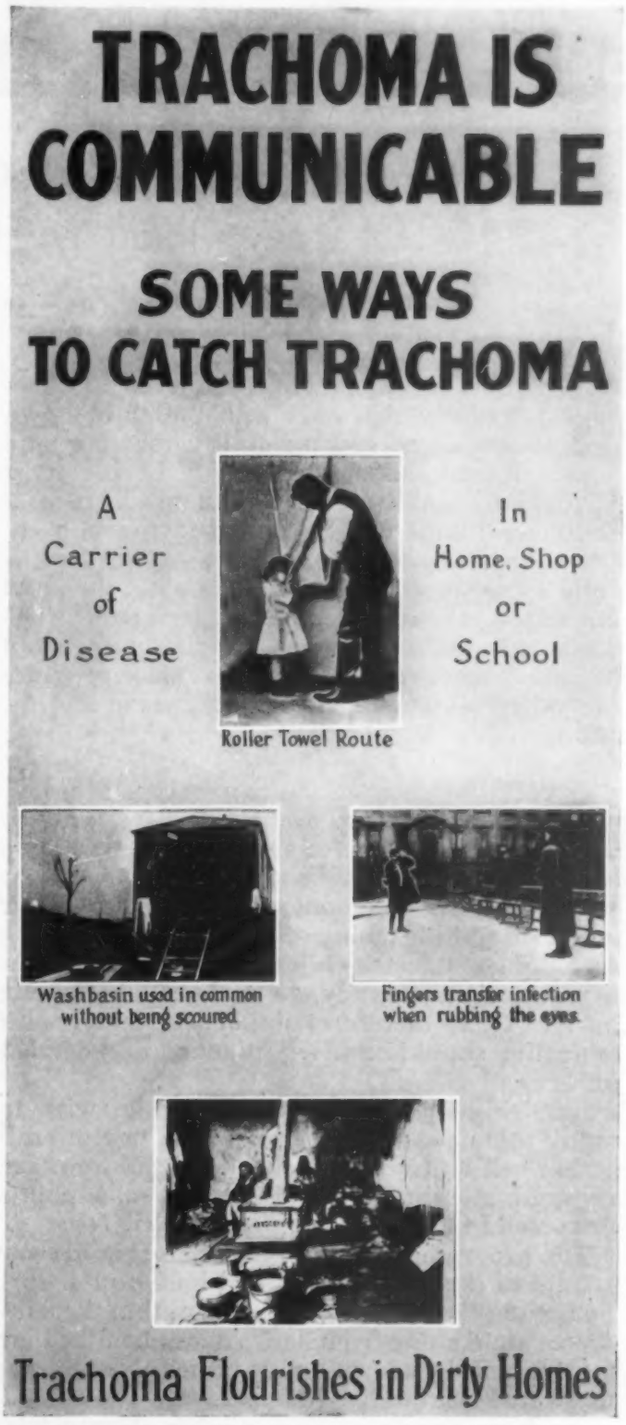
Following a two year survey of working conditions in plants throughout the country, the National Committee for the Prevention of Blindness has come to the conclusion that, from the point of view either of the humanitarian or the cold-blooded business man, the eye hazards are the most serious of all nonfatal accident and health hazards in industry. The employers of one state alone, for instance, have paid about $16,000,000 as compensation to employees for eye injuries and eye diseases in the last eight years. Even this does not begin to measure the real loss to the men, to the employers, and to the state. Trachoma is only one of many eye diseases the prevention of which the members of that new profession, safety engineering, seek. Chief among the others is nystagmus.

Nystagmus is found among workers who year in and year out subject their eyes to abnormal and unaccustomed motions. The miner may develop nystagmus through constant imperfect fixation of his eyes on poorly illuminated objects; the chauffeur through the constant watching of traffic without complete fixation; the compositor by watching the type which he is setting; the paper hanger and painter by following their brushes, while their bodies are thrown out of a vertical position, thus causing undue strain on the visual apparatus. For similar reasons locomotive engineers, draftsmen, jewelers, typists, textile workers, and others may acquire nystagmus.

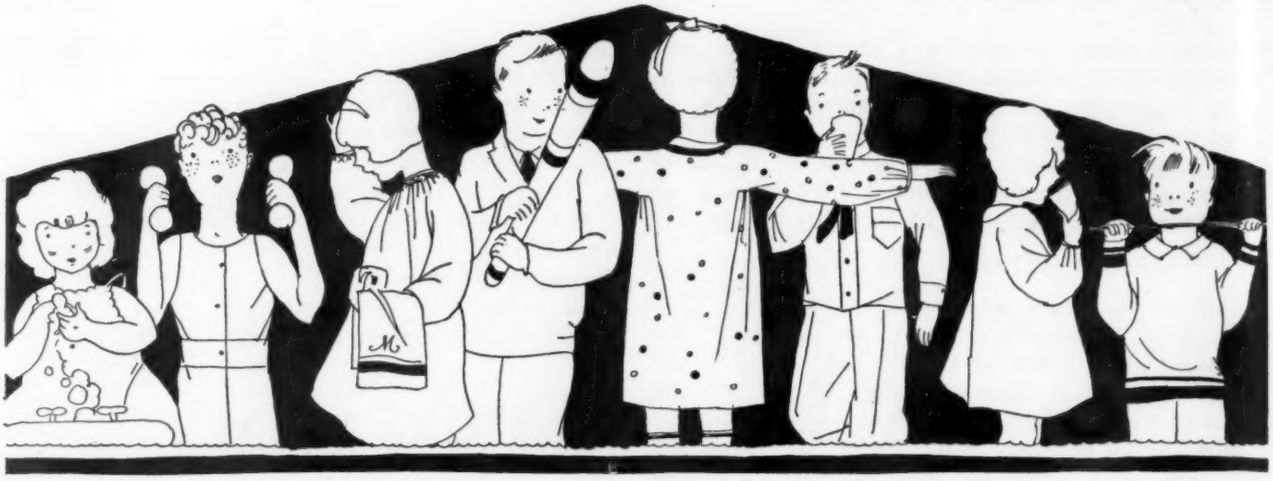
This disease is characterized by continual short, rapid and rolling involuntary movements of the eyeball. A person so afflicted usually complains of objects dancing before his eyes, headaches, dizziness and general fatigue; all of these symptoms clear up quickly if a change of work is made.

The involuntary movements of the eyeball characteristic of nystagmus may also be induced by occupational causes affecting the eyes through the central nervous system or by some extraneous cause. Nystagmus may, for instance, develop in a coal miner affected with carbon monoxid poisoning, the eyes responding to irritation or disease in the central nervous system. The great majority of cases of nystagmus among coal miners, however, is due to poor illumination. A large percentage of the persons affected by miners' nystagmus are undoubtedly predisposed to this disease through uncorrected errors of refraction. One reason for this is that many miners will not wear glasses because they cloud or steam easily underground. Nystagmus is rare in metal mines in which there is good illumination, and is much less frequent in coal mines with adequate illumination, whitewashing, and ventilation.

Treatment for nystagmus should begin with a complete change of occupation. This should be followed by rest, correction of refractive errors, and general building up of the patient, both physically and mentally. Few cases of nystagmus persist under such treatment.


TRACHOMA IS COMMUNICABLE
SOME WAYS TO CATCH TRACHOMA
A Carrier of Disease
In Home, Shop or School
Roller Towel Route
Washbasin used in common without being scoured
Fingers transfer infection when rubbing the eyes
Trachoma Flourishes in Dirty Homes

A poster used to fight trachoma during an epidemic.



Care of the School Child's Health

IV. What He Does for Himself

THOMAS D. WOOD AND MARION O. LERRIGO

THE TWO phases of a school health program which deal with the child's own activities are physical education and health education. Many of the most important factors in the health of the school child are things that he must do for himself. Grown persons must make it possible for the child to do these things, but it is what the child himself does that counts in the end. The mother prepares the meal, but the child is not benefited unless he eats it; the school provides the playground, but the child does not grow strong unless he plays.

Health Teaching of the Right Sort

The returns from a questionnaire sent to several hundred cities in 1922 indicate that some sort of health teaching is given in all the grades of the schools in about three fourths of our cities. Health teaching of the right sort may be a great benefit to the children, but unwise teaching about health may do serious and lasting harm. It is, therefore, important that health education should be wisely planned and carried out.

Inquiring fathers and mothers who wish to apply some sort of standard to the health education activities in which their children are engaged at school should consider the points discussed in the following paragraphs.

The program of health education should bear results in the children's actual habits of living. To accomplish this, it is not enough that the children should study from books about health; they must themselves form habits of healthful living; they must want to live in healthful ways.

Habits, attitudes and knowledge form a trio, no one of which can be overlooked if the health education activities are to be really successful. Practically all 10 year old boys know that washing face and hands is a good thing. A relatively small number actually do wash except under compulsion, and a still smaller number want to wash. Only when the combination of desire, habit, and knowledge is perfected will the boy wash himself at regular intervals.

Teachers who have understood this principle have, in the past five or ten years, developed numerous plans for putting it into practice. In many schools, children keep a record of their actual performance of health habits. This record may be simply a system of checking a record blank, or it may involve the use of some interesting or novel device such as a representation of a thermometer, the mercury being represented by bright colored paper, in which the child adds to the mercury column for every week that he makes a perfect score. With children in the fifth grades, and above, health clubs have often proved stimulating, since in connection with the health clubs there is usually some plan by which a record is kept of the performance of health habits.

Some of the results of health club activities are shown in the following table, which is representative of what has been accomplished in Hunterdon County, New Jersey, through the health clubs.

Results of Health Club Work

	Before Health Club	1917-18	1922-23
Sleeping with open windows.....	55%	90%	97%
Brushing teeth twice a day.....	25%	75%	83%
Washing face, hands, neck, ears.....	67%	94%	90%
Doing without tea and coffee.....	33%	76%	84%
Using individual towels.....	....	44%	66%
Using individual drinking cup.....	40%	85%	80%

The emphasis in the program of health education should be placed constructively on what to do to grow and keep well, rather than on how to avoid disease. There should be a positive, rather than a negative point of view. Children who come home from school worrying about disease germs are not taking part in a constructive, positive program of health education. The child who comes home with a new determination to drink milk every day and to brush his teeth regularly has a teacher who is constructive.

Health education activities should tend to make children interested in the welfare of their friends and neighbors in the community, rather than to leave them concerned solely with their own comfort. This is essential, not only for social and moral reasons, but for the mental health of the child. Teaching which encourages him in introspection and constant examination of his own feelings usually results in nervous, morbid emotional states.

Emphasis on community welfare, discussion of health in positive terms of abounding vigor and strength, and measurement of health by concrete means such as weight, are safeguards against morbid habits of introspection.

A great portion of health teaching must be devoted to the every day necessities; eating and drinking; playing and exercising out-of-doors; resting and sleeping; keeping clean; caring for the special organs of the body, particularly teeth and eyes; hygienic dressing. Probably more time should be spent on the study of nutrition than on any one of these topics. Use of milk and fresh vegetables and fruits in the diet; leisureliness and regularity in eating meals; reduced consumption of sugar; elimination of tea and coffee; eating foods which are easily digested, and choice of diet which supplies the adequate number of calories, are points which are receiving special attention in nutrition teaching to-day.

Their Neighbors' Keepers

Aside from these everyday problems of healthful living, there are two important groups of problems which should be dealt with far more extensively than is the custom at present. Since keeping well is not only an individual concern, but is also involved with the health of the whole community, and, indeed, of the world, it is important that children should learn what their responsibilities are in protecting the health of the community. They should know what public health activities are necessary to maintain community health, so that in adult life they will give the public health service adequate support. The safety of the public health today depends to a great extent on the services of experts—the sanitary engineer, the bacteriologist and the public health nurse. But the success of their efforts is partially dependent on intelligent cooperation of the community. A study of the way in which the community water supply is protected, or a study of the activities of a child health center, for example, will give the pupils an appreciation of the value of expert health service, and will show them the necessity for community cooperation.

The other phase of health education is perhaps more important, but is more commonly ignored than community hygiene. This is education for parenthood. It involves developing an attitude of protective care for babies and young children, and later, an attitude of concern for the future welfare of the race. It involves the development of wholesome, healthful social relationships between boys and girls. It implies an intelligent grasp of important knowledge in the fields of home making, care of children, sex education, and eugenics.

In the elementary schools, the children will not be aware of the purpose of many activities which, in the teacher's plan, are developing desirable habits and attitudes related to education for parenthood. For example, a study of the life cycles of animals and plants is a desirable foundation for the understanding of human reproduction that comes with mature years. But the child who is studying the life habits of his pet rabbits is not and should not be aware of this.

Every Day in Every Way

How may the teacher accomplish all these things? Not in a hygiene class of twenty minutes once a week. Fortunately, many of the usual subjects in the curriculum of our public schools offer excellent opportunities for teaching health lessons. Nature study, biology, and the other sciences; civics, geography, and physical education offer obvious opportunities for teaching health lessons. Many schools have found an exhibit of posters about health to be one of the most effective ways of teaching health, especially when the pupils themselves make the posters. The classes in domestic science, or home economics, deal primarily with health problems. The wide-awake teacher who is interested in teaching health can find many opportunities in the curriculum.

A Task for Parents

Success in health education depends on actual formation of habits, on what the child does, rather than on what he knows. However, it must be frankly realized that many of the most important health habits, such as those concerned with eating, sleeping and bathing, are formed in the home rather than in the school. This is a limitation to the success of health teaching only when the customs of the child's home are unhealthful. However, it means that the cooperation of parents and teachers is a first essential in the success of that part of the health teaching which deals with personal hygiene.

Most of our schools make some provision for physical education activities. About 90 per cent. of 308 cities answering a questionnaire, in 1922, reported that they provided for physical education activities in their elementary schools. About 77 per cent. of 263 cities replying reported provision for physical education in the high schools.

But a curious situation has developed in high schools more than in elementary schools. In spite of the obvious fact that a child does not benefit by a game unless he himself plays it, many schools have become so enthusiastic about winning interschool athletic competitions that most of the time and money has been given to develop the few who play on the team, leaving the vast majority of pupils unbenefited by an athletic program. Fortunately the topsyturviness of this situation is being recognized, and the tendency now is to put into effect a program of physical activities in which all children except the physically unfit may participate.

For a satisfactory program of play and sports there is one sort of equipment above all others that is absolutely necessary, that is space. There should be plentiful space out-of-doors—from 50 to 200 square feet per child is the usual standard. There should be an adequate gymnasium. This is a requirement which most of our elementary schools fail to meet. In 1922, 64 per cent. of 291 cities reporting had no gymnasium in elementary schools. A little over half of the high schools provide gymnasiums, so that the situation is better in the secondary schools than in the elementary.

The present tendency in physical education is to emphasize games, sports, and activities that involve natural movements, as opposed to the artificial, formally developed exercises of former years. The equipment needed differs accordingly. Wands and Indian clubs are replaced by volley balls and baseball bats.

Children will play whether they are directed or not, but wise, well-trained supervisors and teachers of physical education are essential in order to develop children's activities so that the greatest values are obtained.

Adequate play space, both outdoors and in the gymnasium; skilled supervision; a program which includes games and activities based on natural interests and needs, and a plan by which every child participates in the physical education activities, are the outstanding characteristics for which the parent should inquire.

Good Health in June

It has been too commonly believed that worn-out, tired feelings, loss of weight, and other conditions of ill health are the inevitable result of the winter's work at school. The day is rapidly approaching when a school will measure its year's work not only by the number of pupils who have passed, who are advanced for their years, or who are in the usual grade for their age, but also by the growth and health of its pupils during the year.

Educators have for many years recognized the fact that health is the basis for success in achieving the purposes of the school. When the time comes that a year of school life benefits or improves the health of the pupils, the gap between theory and practice will be bridged. Good health will be the rule in June, even more than in September.

Dried Fruits and Vegetables in the Diet

LULU GRAVES

FRUIT is no longer considered a luxury. Since its importance is recognized, it has become a necessary part of the diet. Its nutritive value is chiefly carbohydrate in the form of starches and sugars; in much of the ripe fruit the starch has been changed to sugar. There is a small amount of protein and fat in some fruits, but these are generally treated as a negligible factor, except in cases of disease requiring calculated prescription of diet.

In addition to these nutrients, fruit has other features which make it rank high in food value. Mineral salts and organic acids are found in varying quantities in several fruits. The function of minerals in the body, according to H. C. Sherman in his book on "Chemistry of Food and Nutrition," are: "As bone constituents, giving rigidity and relative permanence to the skeletal tissues. . . . As essential elements of the organic compounds which are the chief solid constituents of the soft tissues (muscles, blood cells, etc.). . . . As soluble salts held in solution in the fluids of the body, giving these fluids their characteristic influence upon the elasticity and irritability of the muscle and nerve, supplying the material for the alkalinity or acidity of the digestive juices and other secretions."

Minerals and the organic acids give the characteristic flavor and aroma to fruits. These in turn stimulate the flow of digestive secretions and may encourage eating on the part of one whose appetite is not up to par. Fruit helps to provide the required amount of water in the diet; it also contains cellulose, which furnishes bulk that is helpful in the intestinal digestion; it lends healthful variety and adds attractiveness to the menu.

Dried Fruits Are Good Foods

Practically everything that may be said for the use of fresh fruits in the diet is equally true of dried fruits, with the exception of the reference to water. Dried fruits have some things in their favor in that they are found in the market in all seasons of the year and in all sections of the country; they are less difficult to keep and require less room for storage. Drying reduces fresh fruits and vegetables to one fifth or one tenth of their original weight and to one third or one half of their original bulk. In regions where cans are hard to procure, drying solves the problem of storage.

E. L. Kirkpatrick, writing in the Cornell University Bulletin, says: "The terms, dried, evaporated, dehydrated and desiccated, have been applied to dried fruits and vegetables and are more or less confusing to the general public. Some authorities, while acknowledging slight differences between certain pairs of the four words, class them all as practically synonymous; others distinguish between dried and evaporated on the one hand, and dehydrated and desiccated on the other. According to these authorities, dried or evaporated refers to fruits or vegetables from which the moisture has been removed with little or no regard to the degree of heat used, while dehydrated or desiccated refers to products from which the moisture has been expelled under a relatively low, uniformly controlled temperature, preferably from 100 degrees to 160 degrees F. Caramelization, which may result from excessively high temperatures during the process of evaporation, is prevented by the low even temperature used in dehydration. From a trade standpoint, dried vegetables have been classed as those preserved in the rays of the sun or over the kitchen range for home use, evaporated as those dried in the common type of kiln plant, and dehydrated or desiccated as those handled in a steamheated cabinet drier."

Since there is so little distinction in the results obtained by these methods, we shall use only the term dried fruits in this discussion. The chief change which takes place during drying is the loss of water, though other changes occur, their nature varying according to the kind of fruit and the method of drying. In general, the starch is changed to sugar and the sugars changed to more soluble form; this affects the flavor, as the proportion of sugar is increased both by the loss of water and the chemical change. In some instances the cellulose is softened. The flavors may be further affected by chemical change in some of the volatile bodies.

The practice of drying fruits and vegetables has been a common one in this country from colonial times until the present, though the colonists' methods were crude. They dried apples, pumpkin, corn, meat and such other foods as were possible and practical. Strings of these were seen hanging from the rafters in every home. Today there is comparatively little of this work done in the home, but drying fruits and vegetables has become an industry of no small porportions. Improved machinery and

methods give us a much more desirable product, cleaner, more sanitary, more uniform and of better appearance.

A word might not be out of place just here in reference to the sulphuring which is done in commercial drying of fruits and which has given rise to discussion and criticism at various times. The following statements on the subject come from the United States Department of Agriculture.

"Sulphuring prevents fruit from turning dark while drying. The dark color makes the fruit unattractive in appearance and therefore not salable. It appears to have a definite influence on the readiness with which the fruit parts with moisture content, sulphured fruit drying much more readily and with better texture. With some fruits, it is said to prevent souring in the early stages of drying. It gives a certain amount of protection against insect injury while fruit is exposed for drying.

"There is neither gain nor loss in palatability nor in food value as a result of sulphuring and while the practice has been subject to severe criticism, it has never been shown that it is injurious to persons consuming the product."

Formerly there were far more apples dried than any other food material. Now methods of storing and shipping are so improved that the fresh apples are easily obtainable throughout the year and that form of the industry is greatly reduced, but the demand for prunes, raisins, currants, figs and dates has increased to such an extent that a number of large plants are employed in the United States alone to supply one or more of these fruits, and the demand continues to increase.

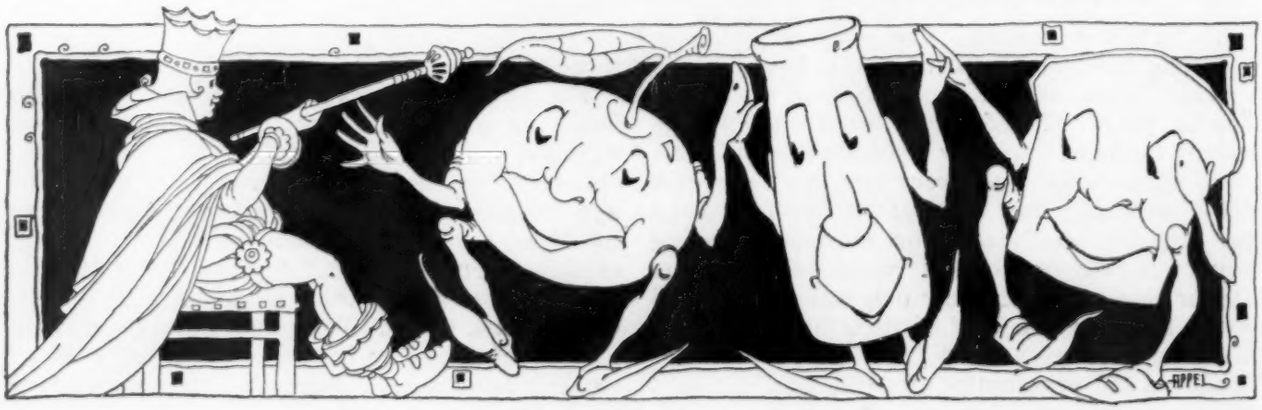
Unfortunately, there was a time when prunes were somewhat in disrepute as a food; just why, is hard to say, but this is no longer true. One of the large, high class grocers in New York City, who has several retail stores in that city, says that he sells ten 25 pound boxes of prunes daily from one store. This is one of the many indications of the popularity of this fruit.

Properly cooked prunes are nutritious and delicious. To be properly cooked, they should be washed thoroughly, covered with warm or hot water and allowed to stand until tender. If kept on the range or elsewhere to keep the water hot, less time is required. If not, after the soaking process they should be cooked for a short time only, below the boiling point. Either process, prolonged soaking or rapid boiling, will cause the prunes to become mushy and make them unattractive in appearance. No sugar need be added to California prunes of good quality, but Oregon prunes are more tart and one may prefer them sweetened a little. Some prefer the prunes uncooked after the soaking; it is not really necessary to cook them, if they are tender. They may be served plain as a breakfast fruit or in combination with cereal. Cornflakes, shredded wheat, cream of wheat, cream of barley or farina are well adapted to serving with prunes, dates or raisins.

Using Prunes in Various Ways

Other combinations are prunes and apricots cooked together; baked apples stuffed with prunes, after coring apples, fill center with pitted prunes and bake. Numerous combinations are possible in the form of salad, desserts and confections. Prunes stuffed with cream cheese, with or without chopped nuts; or stuffed with nuts and raisins, or with fondant, are all well known, as is, also, prune loaf made of prunes, raisins and nuts, flavored with lemon juice and molded with gelatin. Recipes for Norwegian pudding and prune souffle may be found in most recipe books. Prune whip may be made of strained pulp, into which whipped cream has been folded; flavoring and nuts added if desired. This makes a delicious dessert, which has a high nutritive value.

When one's market is limited, a variety in desserts is prune pie or prune almond cake; and what can be better than prune ice cream? Fruit patties made of prunes, dates, figs, raisins and nuts, any or all of these, is a wholesome and popular confection for both children and grown-ups. These are fine for the lunch basket and between meal lunches. Though they are in no sense a medicine, they serve well in cases of constipation, because of laxative sugars and bulk, and in tuberculosis because of concen-



trated food value. A marmalade of prunes, raisins and oranges is another agreeable variation for luncheon. Tapioca, rice and bread puddings always have more appeal if currants, prunes, raisins or dates are added. Prune stuffing for goose and occasionally other poultry is a treat. Who could scorn a fruit which is well adapted to so many uses?

Using Raisins, Currants and Dates

Raisins, currants and dates may be used in nearly every way that has been mentioned for prunes and in some additional ways. Muffins and breads containing these fruits may serve for the sweet in the menu as well as for the bread. Raisin or currant sauce for meats, especially ham and baked calf heart is a savory addition to the service. If one makes one's own confections, these fruits are indispensable.

The food value of prunes, raisins, dates, currants and figs is similar, the chief difference being that raisins, currants and dates have a small percentage of fat, while prunes and figs have not. Here again the proportion is so slight that it is negligible except for one who requires a carefully calculated diet. The iron content of raisins has been overemphasized in some ways; they contain iron, it is true, though in no higher percentage than the others in this group, in fact rather less. There is enough to be said in their favor as a food, however, to make it unnecessary to unduly stress any point. Figs have not been used to so great an extent and are not capable of as many combinations because they contain so many seeds. The skin and seeds of canned and preserved figs are not so tough, therefore these are gaining in popularity. A very delicious seedless Texas fig is obtainable on the market. Figs of good quality are worthy of a more prominent place in our dietary and these seedless figs should find a good market.

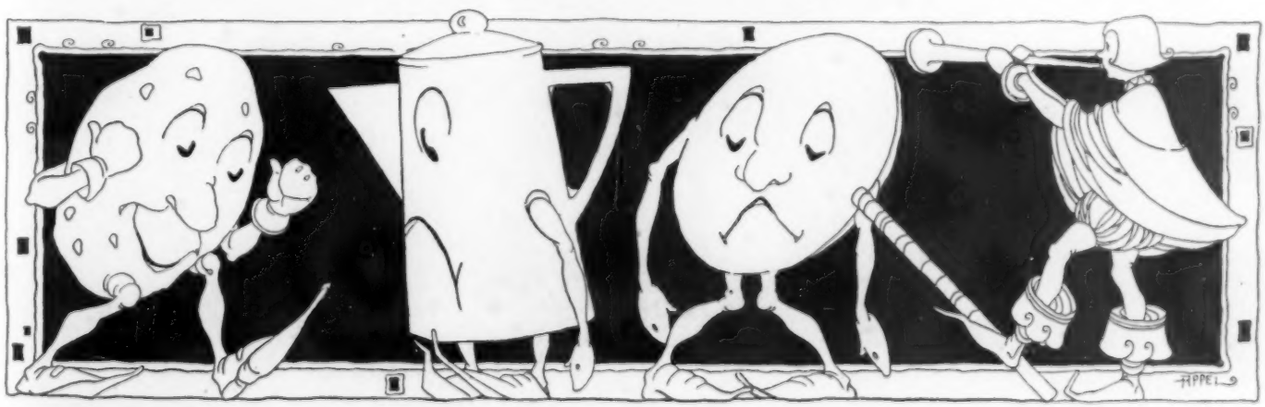
Peaches, apricots and to some extent berries and other small fruits are available in dried form. These serve well in regions where fresh fruit is difficult to obtain; it is far better to use these than to limit fruit on the menu.

The drying of vegetables has also become a recognized industry, though it has not reached the same proportions as the drying of fruit. Up to the present this has, perhaps, been done more successfully as a commercial enterprise than as a domestic one, though this does not mean that successful drying of vegetables in the home is not possible or feasible. There are many driers and other devices on the market which simplify this work and insure good results, but the tendency in domestic preservation of food has been to can rather than to dry. Practically every vegetable may be dried with good results, even the tomato and with proper preparation and cooking they retain their original color and original flavor to a remarkable degree.

The same thing may be said for the majority of dried vegetables that was said in regard to fruits in a preceding paragraph; that is, when fresh vegetables are not available, these are a desirable substitute and should be used rather than omit vegetables from the dietary. As with the fruits, however, there are a few which are in a class by themselves and this discussion will be confined to these few.

Legumes are dried naturally and need only to have the pods removed before being stored. Beans, peas, peanuts, and in some countries lentils, are easily obtained and kept; they are a cheap source of protein. The chief protein is legumin, which has sometimes been called vegetable casein, because it resembles the protein of milk. It should not be substituted exclusively for milk, though a partial substitution is permissible, except with children. Legumin combines chemically with lime salts and forms a compound not soluble in water, hence it is difficult to cook these vegetables in water containing a high percentage of lime. Using a little baking soda in the water will help to overcome this difficulty and helps the legumes to be more readily digested. Legumes are high in nutritive value, though, with the exception of soy beans, they contain comparatively little fat. This deficiency is usually made up in the process of cooking by adding fat meat or other forms of fat.

Soy beans and peanuts have less carbohydrate but more fat than common beans or peas. Muffins or bread made of soy bean flour may be used for diabetics. The flavor is so strong



that they are not well liked, this may be modified by using equal parts of soy bean flour and washed bran, but of course this affects the nutritive value. A synthetic milk has been made of soy beans, but it has not been widely used.

Beans and peas are adapted for use in many ways besides the commonly known method of baking, though in the minds of many, properly baked beans is a dish needing no improvement or variation. If one wishes a change, they may be baked in a loaf and served with tomato sauce; or they may be puréed and the pulp used in combination with leftover meats, chopped or mixed with peanuts to make a loaf. Lima beans, especially, are very good baked with green peppers and pimentos to add zest to their neutral flavor. Soups of many kinds are made of either the whole or puréed beans or peas.

Peanuts are not generally given the place they deserve in the diet; they are wholesome and generally well liked, but should not be eaten in large quantities or in addition to a full meal. They may give pleasure in many ways not associated with the circus. A very acceptable loaf may be made of the nuts, or they may be added to a meat loaf with good effect. Most fruit and vegetable salads are improved by the addition of a few peanuts, either whole or chopped, and they may be used with or without raisins in muffins and breads, particularly brown breads. They make delicious sandwiches, either chopped and mixed with salad dressing, or mixed with raisins or dates. Peanut butter also makes a wholesome, delicious filling for sandwiches.

Another vegetable which belongs in the different class is dried corn; it is a product confined to certain sections of the country, notably the corn belt. It furnishes a welcome variety in the winter menu. The flavor is distinctly different from canned corn and is usually better liked. There is little demand for a variety of ways of serving it as it is usually sufficient unto itself.

Mushrooms Add Zest to Food

Another food plant not utilized as it deserves to be is the mushroom. Large quantities of these grow wild and they are easily cultivated, so they should be in the list of foods which are abundant and inexpensive, especially in rural communities. On the contrary, they are expensive and used for the most part by well-to-do people in the city. Their value is not so much in nutrients, for that is low, but because of the piquant flavor they add to other foods, thereby increasing palatability and stimulating digestive secretion without the harmful effects which may be associated with spices, condiments and similar means of high seasoning. Dried mushrooms are to be had in the market at a much lower price than the fresh, or they may be dried in the home. One explanation of the limited use of mushrooms is that they so nearly resemble poisonous fungi that many people are afraid to trust their judgment of them. People of southern Europe use mushrooms in large quantities, so do many tribes of savages. Are we less intelligent than they?

Former food prejudices are being overcome to an extent that is gratifying to all who are interested in nutrition, and dried fruits and vegetables are among the things from which the ban is being lifted.

Parents Are Responsible for the Disobedient Child

JOSEPH H. MARCUS

EMERSON points out in his essay on "Self-Reliance" that the baby dominates the household because he is the only one who knows definitely what he wants and insists on getting it. This reliance would hardly avail if it were not for the affection that the child's helplessness inspires. That very helplessness and gracious awkwardness of the child awakens our sympathy with the moment of birth.

Two controlling factors are present in all life as interpreted by Galton, nature and nurture or heredity and environment. With the newborn, heredity has performed its best or its worst and can be reckoned with only in the sense of cherishing and developing the best potentialities and predispositions, and avoiding the worst. Environment and nurture being a present question, it now assumes the greatest importance. The higher the animal, the more important become nurture and environment. This is especially emphasized in the human race by the prolongation of the period of infancy.

John Fiske was first to elaborate this view of one of the fundamental laws in higher evolution. This long period of helplessness in infancy is an age of extreme plasticity, when the career of the individual is no longer predetermined by its ancestor. One generation of the lower animals is nearly a prototype of the preceding one. The young animal is born almost fully formed and can partially or wholly dominate the environment, at once or shortly after birth, independently of the parent. The more protracted the stage of infancy of an animal, the longer is its period of adaptability and teachability; a slow birth typifies an increase both in capacity for and development of higher prerogatives. The babyhood of higher apes embodies a period of three months, during which time they are dependent on the parent.

The human infant is distinguished from the lower animals by the much longer duration of helpless infancy and the marked increase in the size of the brain, particularly in the extent of its surface. During the first two years of life, the brain not only doubles in weight but increases marvelously in its convolutions and complexity. It is evident that correlated with this long period of infancy there must be a time of maternal care and watchfulness if the child is to find its way into normal adaptation to its surroundings. In order to minimize all sources of error, a careful study of all the phases of infancy and childhood are of vital importance to physicians, parents and society at large.

Wholesome Home Environment Essential

Many a home environment which to the superficial student might possess the appearance of being wholesome is detrimental. Parental solicitude for the child's welfare may be carried to such extremes as to undermine the physical

A wholesome home environment is most important for the child. Little Bob enjoys watching mother mix a cake.

Photo courtesy the State College of Agriculture, Oregon

state and lay the foundation of apprehension, dread, sluggishness and torpor. Because of this subtle interaction between the child's individual constitution and the ideas and ideals generated in this home atmosphere, the familial factor must at all times be cautiously viewed when interpreting the manifestations of the child.

Significant changes of a psychologic nature take place in the personal economy of the infant; from the moment of birth, demands of one kind or another for adaptation to reality begin to assail him. At this time the new individual begins to be exposed to the countless influences which life brings with it and which go to determine the mass of memories, habits and resources which are employed in the task of adaptation. Impressions register on the infantile brain, even though in an immature manner, and of sufficient depth to create a more or less lasting impression.

The spoiled baby will cry for a definite purpose; he may wish to be picked up. When he is lifted from the crib, his cries cease with the first sensation of motion. When the 2 a. m. feeding is eliminated, the infant manifests his desire for the accustomed feeding by arousing the household. If a bottle of water or an attitude of healthy inattention is substituted, the baby is impressed with the fact that his whims will not be responded to; soon he will accept this change of routine as a matter of course and go to sleep.

Foundation of Good Habits Lies in Cradle

In the cradle lies the foundation of regularity in habits, and responsiveness to sound habits. The human infant, in spite of the potentiality which he carries with him to develop into the reasoning adult, is by far the most helpless and dependable of infants; he is subject not only to his own laws of development, but to experimentation with certain doctrines on the part of untrained parents.

Glueck points out that the situation has become particularly aggravated in late years because of the puttering by untrained parents. Parents have access to a mass of trashy literature on the subject of bringing up children; this literature usually ignores the fact that no two children are quite alike in all respects and that no method of child rearing has been devised which would meet the requirements of all cases.

It may be difficult to train a child to take nourishment, to attend his physical functions at certain convenient intervals, to go to sleep naturally without the necessity of lulling influences such as swinging the bed or rocking the cradle. These babies from earliest infancy may manifest a certain amount of stubbornness which becomes more firmly rooted with the passing of the time, so that with the advent of childhood the negative phase is implanted with great depth, owing to the extreme flexibility in the parental attitude. These wilful, but otherwise normal, children dominate their parents with powerful traits inherent only to them and obvious before the period of connected articulation. These children are even more commanding when their helplessness is accompanied by a few meaningless tears.

No Differences in Opinion Before Child

One of the fundamentals of child training is that the parents should have united opinions. When the infant is offered different foods which are necessary to proper development, he must be made to comprehend that the choice of foods is not within his jurisdiction and he must accept the changes without protestations. If the new food is refused, no food should be given until the next meal. Meal time should be used for the ingestion of food. The child should eat at his own table and no outside activities should be indulged in at meal time.

The food should be served daintily and the vegetables prepared so that they are appetizing. Parents should ignore the antics of a child who has developed certain habits at the table; he will soon realize that he is no longer the center of excitement and will lapse into a state of goodness.

Many children have a naughty stage at 2 or 4 years of age, after that they seem to be more obedient. The reason is simple. At this age the idea of what is good begins to set itself against the strong sense desires. The current is crossed by something under water; the ripples show it. Corporal punishment is justifiable when children are cruel, lying and mean.

Energetic toddlers are scolded and told they are bad because they will not keep still. A mother should not consider her child naughty whenever he does not behave as she wishes; a child can be considered naughty only when he falls below his own standard of conduct. The standard for the child is elementary, but he is capable of understanding that he must be cheerful, obedient and gentle. The parents have a right to demand these attributes from the child. The smallest baby can be taught not to whimper and whine if the mother consistently refuses to take notice of him until the whimpering stops. The little child who has faith in the reasonableness of his mother's few orders will quickly learn to obey, realizing that the reason will be explained later.

The child who has never been allowed to become bored with his toys, but has had them taken away the moment he shows a tendency to treat them violently, forms the habit of treating all things gently. Parents have no right to demand that a child sit quietly for long hours at a time, that he be good tempered when he has irregular meals, uncertain bedtime and ill-planned exercise.

Let the parents live as examples of good moods and dispositions; let the daily associa-

tions of the home be full of good cheer and happiness. Teach the child that sweetness of temper and forebearance are rules of the home; affection and good will should be freely expressed. Emphasize the far-reaching effects of good comradeship and regard for the rights of others.

The nature of the child responds to good influences. The moods and dispositions of the child will be poisoned and embittered by constant interference and a lack of good-fellowship in the home; his sense of healthy perspective will become distorted, for moods obey the law of habit, and subconsciously the child will copy the parental attitude. The silent influence toward good will in the home is a determining ascendency in the building of personality and character. Difficulty in training a child may reflect a lack of stability and perserverance, or an unhealthy emotional indulgence on the part of the parent. The important thing, as Glueck emphasizes, is to maintain a healthy balance between an opportunity for the child for spontaneous development on the one hand, and intelligent guidance of the development of his potentialities with a clear vision of what is good individual development on the other hand.

Heredity Not to Blame for Child's Disposition

The baby comes into the world without disposition. It has certain tendencies toward disposition, which we usually designate as temperament. We may credit or blame the child's temperament to heredity, but at the same time we must remember that the parents supply the greater part of the heredity that is immediately effective in determining such individualistic qualities as temperament.

Too great attention cannot be given to environmental factors, particularly in the first five years of life; it is in the earliest years that the great tragedies occur that tend seriously to warp the individual expression of energy in later years. The mental design of the child's life is formed in the first few years of life, and owing to the individual and concerted efforts of certain psychologists, teachers and doctors, a concrete body of knowledge, inherent to children, has been created. The outstanding benefits are obvious. We can see more clearly than before which are the more essential differences between the child and the full grown adult; we know that there are certain stages of growth and particular tendencies at each stage that are compelling to most children. By careful inquiry of the child's routine, and by observing the child in the home, much medication can be eliminated for restlessness, constipation, loss of appetite and anemia, for these manifestations may be either directly or indirectly obvious characteristics of a negative phase in this type of child.

Even among the children of the wealthy, the hygiene of the mind is often overlooked. Faulty management produces restlessness, instability and hypersensitiveness which pass into a neurosis in later life. To prevent such disastrous consequences is one of the most important functions in the training of children, and sooner or later medical advice is sought. If the physician's intervention is to be followed by success, he must be prepared to approach this problem from all angles. Obviously, it is necessary to exclude the presence of organic disease. If none is found, he must explore the environment of the child in its entirety, delving carefully into the daily routine of the child's life every hour of the day. The opportunities for close observation of children which mothers enjoy are so potential that it is unwise for physicians to disregard their statements.

Parents Need Instruction

The situation created by these negative children necessitates instruction of the parents, in order that they may appreciate the point of psychology involved and help in eradicating the maladjustment. As Charcot has so ably asserted: "In functional disorders it is not so much the prescription that matters as the prescriber." The child who declines food, refuses to sleep, refuses to attend his physical functions, refuses to obey, shows a distinct negative quality which becomes more frequent and habitual when the child knows that his conduct distresses his parents. The child is impressed by the surroundings in which he is supreme, and fully appreciates the distress he creates.

If the doctor is to adapt himself harmoniously to the treatment of children, he must not consider it beneath his dignity to study nursery life and nursery mannerisms, for in this environment lies the foundation of things, the start of life. If control is active, yet ineffective, if reproofs and appeals and unheeded expostulations are constantly passing from the mother, the child very often responds by developing negativism, which is merely a symptom of nervous unrest—the result of an inconstant attitude in the home.

In order to combat the negative attitude, parents should relegate themselves more to the background, allowing the children free play. If punishment is necessary, the storm must be weathered by all means. The child should be lauded for his good qualities and should be told about those qualities which parents wish him to achieve.

The child cannot too early be taught to face reality and learn to appreciate the fact that life is a process of adjustment.

Training the infant in regular habits is essential to a happy adaptability in childhood and adolescence; displaying an attitude of stubbornness more forcible and lasting than the child will eliminate many negative traits; healthy inattention is an excellent form of medication.

Hester's Holdup

FRANCES SAGE BRADLEY

HESTER was a scrawny little half grown cow girl, all arms and legs and flying mane. Her point of view was as wholesome and fragrant as sage brush, yet on occasion she proved as prickly as cactus. Nothing so ruffled her ire as to be called a down-easterner. Unacquainted with Mr. Einstein and his theory of relativity, and being a simple, direct little person, Hester admitted, at least to herself, that east was east and west was west. Nevertheless she was embarrassed and humiliated when repeated reference to the dog eared maps of her geography showed Illinois on the wrong side of the dead line. She resented the injustice of being dubbed a tenderfoot by the boys of Judith Basin, themselves from as far east as Kansas and Minnesota.

International

Hester learned all the stunts of the cowboys, proving herself fearless; she was past master with the lariat.

Valiantly she strove to live down the stigma of her birthplace. She learned all the stunts of the cowboys, often proving herself more fearless and agile than her clumsy tormentors. She was past master with the lariat and rounded up sheep and cattle with the best of them. She would spring to the bare back of the wildest pony and cling like a cat to his quivering, protesting, bucking body. With rifle and gun she was the terror of every rabbit and coyote of the coulée, and she had brought down, unaided, her own mountain lion.

It seemed an "ornery" trick for the boys of the basin to begrudge the plucky little girl her well-earned spurs. As a matter of fact they all loved and admired Hester and stood in awe of her prowess. On a show-down not one of them but would have fought for her to a finish. They could not, however, resist the keen male delight of dodging her prompt, well-aimed, savage comeback as she dashed headlong into the bunch, eyes blazing, chin and shoulders tense and her little brown fists landing promiscuously into their grinning faces.

While his ten children were for the most part half fares or no fares at all, Hester's father had moved his family from the coal fields of southern Illinois to the copper mines of Montana. They had come, however, just as the mines closed down. Every one wanted to get rich quickly on oil. Banks offered endless credit and filed away collateral in the form of worthless paper. The oil proved a dream. Prospectors organized companies, sunk wells, built refineries and railroads on the money of suckers, then departed for parts unknown. Homesteaders, unable to meet their payments, left partially or wholly proved-up claims and moved farther west. The banks, finding it impossible to carry such a load, closed their doors and were glad to secure men, on practically any terms, to hold down the ranches and prevent ruinous loss from freezing, starving herds.

So Hester's father fell heir to a homestead, mortgage and all, with an alluring option of buying, on his own time, 3,000 head of stock at $3.00 per head. Into the little two room cabin of logs and adobe nosing into one side of the mountains surrounding the basin, he moved his bulky family. He knew little of farming and less of dry farming with the summer fallowing and constant cultivation necessary to its success. Rain was practically unknown and there was no irrigation. Water had to be brought by the barrel from the nearest stream 11 miles away. His fields, reputed to produce 60 and 75 bushels of wheat to the acre, yielded but 12 and 15 to his unskilled efforts. Hester and her mother planted all the seed they could get from their congressman, but the corn, beans and tomatoes were either scorched and parched by the intense heat of the summer sun, or caught by the early frost.

Each year decreased the possibility of returning east to Illinois. It also increased the diffi-

culty of educating so many children. For a few terms the two oldest boys were boarded in the nearest town. They were not bad boys, but they learned much not included in the regular curriculum of the schools.

Finally Hester was sent in to mother her older brothers in a tarred shack near the school. It was dark and gloomy and bare, but banked up outside and covered with heavy paper inside, and with a small stove and a couple of coyote pelts on the floor, it was at least warm and comfortable. Sometimes the supply of food they brought in from the ranch on Monday morning would last until Friday, when father drove them out to spend the week end with the family. Again, the boys were as hungry as a bunch of bears, or visiting children taxed the hospitality of the scant ménage, leaving lean pickings for the rest of the week.

By this means Hester and her two brothers finished the grades. The boys had to work on the ranch, but Hester insisted on going to high school and, later, taking a business course, which, she declared, would be far more helpful than washing dishes and scrubbing the younger children out on the ranch. This meant that the mother and babies had to move into the little tarred shack while the next older children made the grades.

Board was found for Hester in the home of the public health nurse who lived at the Gap. Hester had never heard of such a person; she associated nursing with sickness and death. Her curiosity had to be satisfied, and she was told that Sheppard-Towner funds, state tuberculosis funds and an appropriation made by the school board paid this nurse to keep children well. Hester immediately wanted to know why she visited only children in town, where there were doctors, instead of going out in the country, where there was no one to prevent or cure disease.

During the two years of Hester's town life, she held her place on the honor roll, and did many other things. As a girl scout, she became proficient in the cooking and canning classes of the home demonstration agent; she was most dexterous in the first aid classes of Miss Norton, the nurse. In fact Hester did not seem to miss a trick. Week ends and vacations found her galloping over the plains, beyond the buttes, through the coulées and into the bad lands beyond. Her fingers were as nimble as her wits. She stripped many a clean sheet into bandages and dressed burns, cuts and lacerated wounds.

During an outbreak of smallpox, the nurse vaccinated all children found without scars; this included Hester. When the disease spread to the basin, Hester gave such a tongue lashing to the heads of certain families that she soon discovered they were concealing from her the extent of the epidemic; many families were harboring one or more cases of smallpox. The situation was further complicated by a certain healer who claimed the power of immunizing without vaccination. However, upon his illness and death, from a virulent form of the disease, Hester had her day. Miss Norton came to her rescue and the county physician found a public ready and eager to be protected from smallpox.

Hester even discovered a child with infantile paralysis, which the mother insisted was only weakness from a short run of fever. Another patient died immediately upon reaching the hospital after a 60 mile drive over the prairies.

During the holidays, she found, far out on the ranch of old Peter Olsen, his young wife with a new baby, whose eyes were glued shut. Hester had reached the limit of her scant knowledge. Neither Peter nor his wife was blind; she could not understand why their baby should be so afflicted.

"Why didn't you get a woman to take care of your wife, or take her to the hospital at the Gap?" she berated the harried father.

"No," he protested. "I care for her. She bane have her kid here," pointing to the filthy little cabin which he considered the proper place.

Into the little two room cabin nosing into one side of the mountains surrounding the basin, Hester's father moved his bulky family.

International

Mr. Olsen, stolid, foreign, had never been diverted from his farm and flock by the irresistible dream of acquiring wealth. Through all the wild excitement sweeping over the country, he had raised wheat, which, neglected by discouraged farmers, was now soaring in price. He had accumulated, little by little, a herd of 30,000 sheep, now wintering in the basin. Hester knew him to be a rich man, able to afford the best in the land, and her wrath knew no bounds.

"You old skinflint," she cried, "you're not fit to have a wife and baby. You know very well that you pay good money for herders to tend your dirty sheep. They never leave your ewes in lambing time, and every mother has her own 'jug' in winter or her tent in summer, where she may be clean and quiet and have her baby in peace, and all because they bring you in precious money. But look at this cabin." She pointed to the disorder and the pile of dirty dishes on the long red and brown table swarming with flies.

"I suppose you think that if you and your lazy herders wait long enough, Mrs. Olsen will get out of that bed and clean up after you. But I'm here to say that if she raises a hand before this baby is a week old, I'll bring Peg Leg Sheriff and take them both to Mrs. Jordan's maternity hospital, where you know very well they ought to be."

During this round of abuse, the indignant little girl swiftly, deftly straightened up the bed and made the anxious, protesting woman comfortable. With another perplexed look at the baby, and the assurance that she would soon return, Hester sprang to the back of her pony and dashed for the home of Chris Christiansen, the only man in the district having a telephone. She felt Miss Norton would come if she knew the circumstances. She did come before night, although it meant a 90 mile drive over devious and deceptive roads with practically no landmarks.

Miss Norton explained to Mr. Olsen that only by the most scrupulous care might his son be saved from total blindness. The old man was shocked. In his way, he was fond of his young American wife, and proud of the boy who had come in his old age to inherit the property accumulated by great economy since landing at Castle Garden forty years ago.

"I suppose you couldn't afford two bits for medicine to save your baby's eyes," railed Hester, washing the dishes and resetting the table preparatory to the next meal. Miss Norton showed her how to puncture the tip of a wax ampoule supplied by the State Board of Health, and let one drop of the contents fall between the swollen lids of each eye three times a day.

"You don't deserve it," Hester declared. "If it was your eyes, I'd let you go stone blind before I'd come near you. I suppose you think it costs too much to keep your own brat from going blind. You'd rather put him in the asylum and let the neighbors' taxes keep him. Or maybe you think we'll care for him when you are dead and gone." She sneered at Mr. Olsen in wrath.

Three times a day Peter dreaded yet watched anxiously for spitfire Hester, who, for all her superior threats, was greatly impressed not only by the seriousness of the case, but by her own ignorance and lack of training. Nothing could have relaxed her vigilance in carrying out the instructions of her chief. Just for good measure she heated water, bathed and dressed the baby daily and attended to the mother's wants as she had done for her own mother in the past. When Peter Olsen came home at night his cabin was neat as a pin, and a great pot of potatoes, beans or cabbage was steaming alongside the coffee for himself and the two herders.

Not for worlds would Hester have shared with Peter her satisfaction and pride in seeing the baby's eyes clear up. She wanted the old man to suffer and to pay in full for his parsimony. Until the eyes were again clear blue and free from pus, she insisted that the baby was not safe. Finally she could find no further excuse for her daily calls, so she took the father aside and, with hands on her hips, said in her most imperious manner, "Well Peter Olsen, your son's eyes are well. How much is his sight worth to you?"

The old man was surprised and shuffled about uneasily. "You bane a good girl, Hester, but for your sharp tongue. Me and my wife, we will remember what you have done for our little boy," and he edged toward the door.

"That's all right about remembering, Peter, but I must have my price, and I come high, Miss Norton says it will cost $3,500 a year to put a nurse in this county, so that such a thing as this can never happen again. It would have cost you much more than this to support a blind boy all his life, so you are getting off easy. Yes, $3,500 is my price. Let me have a check," and she reached for the pen and ink on the mantel shelf and placed a chair beside the table.

The old man blinked and swallowed hard as he gripped the chair. Hester almost relented as she saw how he felt.

"Come, Peter, don't take it so hard. Let's call it a New Year's gift from little Peter. Make it payable to the county treasurer, and Miss Norton will help him find a good nurse and a car. She'll be visiting little Peter regularly and all the little brothers and sisters to come, and she'll save you many doctor's bills. You know it's little Peter's first New Year; let's begin it right."

Hester's holdup was rewarded. Swept from his feet by her whirlwind methods, Peter Olsen had no time to realize the magnitude of his generosity. He swallowed hard and placed in her determined, outstretched hand a full sized check. He began the New Year right.

A "Better Health Special" Train

J. A. LE PRINCE

I WAS recently invited to spend a few days with the "Better Health Special" train going through Arkansas to advise the rural population how to keep well.

I was glad to go, for I wished to see just how a railroad would handle a problem so new, and to find out if the method used to reach the rural public could be used elsewhere.

Twenty-four hours after I joined the "Better Health Special," I reached the conclusion that it was a huge success. It had been well planned and proper effort made to utilize agencies that most health workers do not use.

The general plan was to have the "Better Health Special" visit ninety small towns between Missouri and Texas in a twenty-four day period; to have the State Health Department endorse the project, and the State Bankers' Association of Arkansas become actively engaged in selling the idea of better health to the rural public.

The bankers' association is very active and assigned the propaganda and advertising tasks to the banks of each community to be visited. The local banks did their work well and spread the news through each county and beyond.

The train consisted of eight cars, including two exhibit cars and a car well equipped for short talks, illustrated by moving pictures on practical health topics.

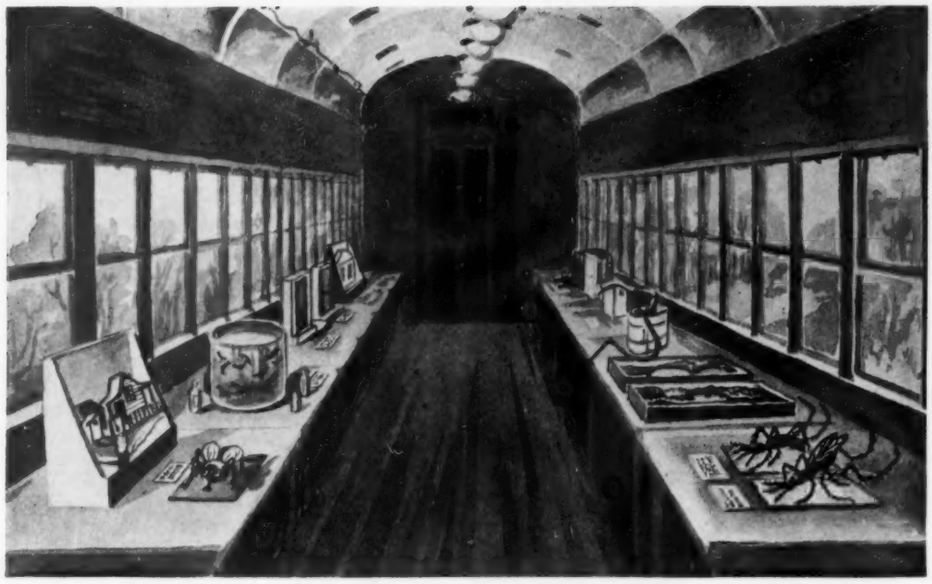
The exhibits included animated models showing how diseases are spread by flies; how unsafe water may be filtered and treated with simple apparatus; the proper way to construct wells and the right kind of pumps to use to insure safe water. A small milk pasteurizer, inexpensive, and readily used on the farm, was shown. There were models of drainage systems for controlling malaria bearing mosquitoes, and proper ways to screen houses. Large models of mosquitoes in various stages of their life cycle attracted much attention. Mosquito destroying fish (top minnows) were used and their continuous appetite for mosquito larvae demonstrated. Safe methods for sewage disposal were also shown by models.

Volunteers from various health agencies, including the Gorgas Institute, were present to explain the exhibits, answer the numerous questions and give short talks on ways of preventing controllable disease. The aim was to arouse interest in keeping well and to present to the many visitors concrete examples and simple methods by which the controllable diseases conveyed by water, milk, human wastes and disease carrying insects could be enormously reduced.

Enthusiastic Crowds at Every Station

One of the first small towns we visited had a total population of several hundred and at the station nearly twice as many people were clamoring to enter the train—most of them from distant rural homes. I asked one farmer how far he had come to meet the train. His answer was 28 miles. The thermometer registered 95 degrees in the shade.

One car was equipped for moving pictures; in connection with the pictures practical health talks were given.



The exhibits included animated models showing how diseases are spread by flies; the proper way to construct wells; large models of mosquitoes in various stages of their life cycle and mosquito destroying fish.

At station after station all available parking space for wagons and cars was occupied and station platforms crowded. Farmers with their wives and children climbed on the train, eagerly examined the labeled exhibits and missed not a word by the demonstrators in charge. They went through car after car, and filled the lecture car over and over. Many on the station platform who were not able to get in stuck their heads into the lecture car windows. When the farmers left the train they were given literature to take home to show the neighbors; the smaller children wanted to take the models of flies and mosquitoes home.

As a farmer moved away from a 10 inch model of typhoid fly, the little negro boy behind him backed away hurriedly and said: "Will it bite you? How do you get out of here?"

Such crowds met the train at the stations visited that they had to be admitted by sections and counted as they entered the forward end of the train.

In addition to the "Better Health Special," short talks were given at local theaters to drive home the lessons of the train.

I was interested to learn what the rural visitors thought of it all, and to get their mental reaction, particularly those living far distant from towns.

The temperature in the train was much above normal and the crowds leaving it flocked to a country store for refreshment. I followed to hear their remarks. An old man of about 70 years, standing with his back to me, said to another man:

"We have had many shows here, some good and some poor, but this is all good."

A little boy asked his father what it was all about. The father answered:

"Well, to show us some changes we've got to make at home son, and there's three of 'em I've got to do right soon, too."

Assuming that each person who spent half an hour in the health train speaks to three or four friends or relatives about it, the message may go far, for 40,000 visitors entered the train.

A sanitary engineer from a nearby state who was on the train said: "This trip will cost the railroad about twelve thousand dollars. That looks high, but you don't have to figure long to see the business and the economic side of it. If we prepared a set of bulletins covering the subjects represented in these exhibits and lectures and sent them out to these people, it's a question as to how many would have been read at all, and it would cost more than double the amount this successful method costs. It is good business."

Other things of importance were accomplished by this train; the need of applied rural sanitation was thoroughly sold to the banking interests of the state. This is a notable advance. Rural sanitation has always been closely related to agricultural development and banking transactions, but it has too seldom been realized and made use of. Insurance interests would profit financially by following the lead of the bankers' association and pave the way for a better health status in rural districts.

On Saturday, the fifth day on the road, with eight stops on schedule, and the hottest day of the trip, a delay occurred, causing the train to arrive an hour and a half late at its last exhibit stop. Ten o'clock at night was too late to expect a crowd. As we pulled into the depot one speaker with only a trace of his usual voice remaining hoped we might have but a short closing session. He popped his head out of the window, withdrew it rapidly and said: "There's scads of 'em waiting for us. L. W. B."

When this perfect day was over, at about eleven that night, I asked what "L. W. B." meant. He grinned and answered: "Why, don't you know? They are the initials of our general

manager." I asked why I had not met him. His reply was "He is not here—L. W. B. stands for Let Work Begin."

There are very few county health departments in Arkansas and the rural health status is not what it should and can be, but with the largest railroad doing constructive health work, and hundreds of families traveling long distances to learn how to keep well, the future possibilities of improving the health status of the average farm home are encouraging.

In the past, bankers did not realize that the health status of the farmer and his tenants is controllable at relatively low cost. They are beginning to understand that good health is a key to the crop situation and will reduce the financial risk to the bank.

If bankers become increasingly interested in reducing the health hazards, we may expect, in the near future, to hear of their consulting with sanitarians and making the adoption of a wise minimum requirement for health in rural districts conditional with granting farm loans.

Such activity would be a valuable factor in improving farm home sanitation, and would reduce unnecessary risk. It would become an important item in the future development and prosperity of many counties, and a prominent factor in the elimination of malaria and typhoid fever.

Since urban centers are so far ahead of rural districts in applied sanitation, our big problem today is to improve sanitary conditions in farm homes. When we can make our rural public understand the real value of keeping well and the relative value of applied sanitation, health workers will make greater progress.

Possibly we sanitarians could accomplish much along this line if we concentrated a little more on selling our ideas to big business executives who specialize on making a success of the projects they consider worth while.

If the railroads can sell health better than can health workers, then sanitarians can advance sanitation by assisting the railroads. The results will profit both farmers and railroads.

What Is Cancer?

J. E. RUSH

UNDER the high power microscope, a properly prepared piece of tissue taken from any part of the body is seen to be made up of units that may be compared to the cells of a honey comb. These structures are technically known as cells. Instead of having honey within them they contain a viscid substance, not unlike honey, known as protoplasm.

Cells are produced from like cells, simply by dividing into two. Cells grow, arrive at adult size, perform their function for a time and die; then they are replaced through the multiplication that has been described. So the cells in the body are constantly coming into existence, growing and dying but always in an orderly fashion.

Now suppose some factor enters this cycle, tending to upset it. What happens? You are all familiar with that overgrowth of tissue known as a corn, which is produced on the foot due to constant and repeated friction. The same thing occurs in the form of calluses on the hands in response to manual labor.

The orderly cycle has here been interfered with due to the mechanical effects of pressure and friction. This illustrates another property of living matter, namely, the power to adapt or adjust itself to external conditions imposed on it. In this particular case the adaptation produces a hardened external overgrowth to meet the particular demands made on it from its environment.

How Cancer Advances

Suppose that this corn or callus because of some factor not yet well understood, did not cease its growth when the external conditions had been met but kept on growing "in a wild and Bolshevistic fashion" in every direction through the skin and into and through the body. It now serves no useful purpose; it is invading the body, growing at the expense of the rest of the individual. As it grows it robs the normal body cells of food intended for them, and poisons the normal body cells with the end products of its growth which are thrown into the blood stream.

In its advance it erodes into blood vessels and lymph channels and parts of it are detached and carried away by the blood and lymph streams to distant parts of the body where they become implanted and new or secondary cancers are produced. These grow like the first, entirely independent of the needs of the body and at the expense of the host.

It is before the original growth has become disseminated, that is, while it is still localized in its primary position, that cancer is curable.

The length of time before any particular cancer spreads through the body cannot accurately be stated in a given case for it depends on many factors, such as the rate of growth of the cancer, its proximity to the blood and lymph channels and the resistance of the individual. Hence, immediate attention should be given to any condition which simulates cancer, for the individual is like a person smoking a pipe while sitting on a keg of gunpowder—the explosion may occur at any moment.

Chronic Irritation a Cause

Cancer frequently develops at a place where there has been constant friction or chronic irritation, as in the region of a sharp tooth, about ill-fitting tooth plates or from the irritation of a mole or wart. While cancer is probably not caused by chronic irritation alone, it is frequently found where there has been an irritation over a considerable period of time, and it may be well to recall that experimental cancer has been produced by the continuous application of irritating substances.

The following are the symptoms or manifestations that we should immediately report to our family physician if we would avoid cancer:

1. Any obstinate sore on the surface of the body, particularly if it is about the mouth, tongue or lips.
2. Any mole, wart or birthmark that becomes irritated or shows changes in shape, appearance or size.
3. Any abnormal discharge from any one of the orifices of the body, particularly if tinged with blood; also irregular or profuse bleeding.
4. Any lump or swelling, particularly if located in the female breast.
5. Continued pain in the upper abdomen, particularly if aggravated by the taking of food; that condition usually described as "dyspepsia" or "indigestion."
6. Increasing and continued constipation; also any abnormal feeling in the rectum.

While the above symptoms accompany conditions other than cancer, they indicate the absolute necessity of a thorough physical examination by a competent physician for the purpose of excluding cancer. These symptoms are much more significant after the age of thirty-five years, for it is in later life that cancer takes its greatest toll.

We should remember that loss of weight and change in complexion and appearance of the skin are later symptoms of cancer, usually indicative of cancer in the incurable states.

Present Opinion on Cancer

It may be well to recall that at present the consensus of opinion is that:

1. Cancer is not inherited in the ordinary sense of the word.
2. Cancer is not communicable.
3. Cancer in the beginning is not a generalized disease.
4. Early cancer is localized and can be removed; therefore, early cancer is curable.
5. The greatest difficulty in the way of reducing the number of deaths from cancer is in recognizing the early symptoms; the later symptoms are not at all distinctive for the disease in question.
6. Early recourse to the trained physician must be made if a scientific opinion is desired, and if a correct diagnosis, with proper treatment, is wished. Early treatment is absolutely necessary in cancer, if death from that disease is to be avoided.

HOW TO PUT HUMIDITY IN YOUR HOUSE

IS your house drier than the Sahara Desert? Does your skin crack and itch? Does the furniture register its complaints that the house is too dry every time you sit down? Dr. E. P. Lyon has made some interesting experiments in trying to introduce humidity into his own house in Minneapolis. He says: "If you want humidity in your house in winter you will have to work for it, and pay for it."

Dr. Lyon's article, "How to Put Humidity in Your House," will be a feature of the January, 1926, issue of HYGEIA. *It will be accompanied by working drawings giving the most satisfactory types of humidifiers.*

Developing Nutrition Work in the Hawaiian Islands

OLIVE F. WINDETTE

AFTER six days of enchanting ocean travel we see the green and amethyst hills of the island of Oahu, where Honolulu, the capital and largest city of the territory, is situated. The Honolulu of today is a thriving, modern community of 100,000 people, two thirds oriental in population—Japanese, Chinese, Korean, and Filipino; the remaining one third consists of Hawaiians, Portuguese, and about 20,000 white people from every quarter of the globe. We find it a city of contrasts. Palatial homes built in gardens of flowers and palms cluster among the hills and around the harbor, while hidden away in the side streets and alleys are found sections of old Japan, China, and Manila.

As a social worker I was interested in this city, where Japanese, Chinese and Porto Rican live. Their little houses, built like cardboard boxes, their primitive household equipment, their curious dietary habits, their religious prejudices were an interesting study.

I went to Honolulu as a member of the staff of the Social Service Bureau, to assist in developing nutrition work in the public schools. The manager of the bureau felt that the time had come to take some constructive action in combating malnutrition among school children on the island. She appointed two workers to undertake the first work of organization in the public schools.

To start off our work in the schools, we weighed and measured the children in two schools, and found an average of 36 per cent. who were 7 per cent. or more underweight. In each school there were 100 who were 10 per cent. or more underweight, and these we divided into classes of 20 each for weekly weighing and health instruction.

We had every kind of difficulty in organizing the work; the principals of the two schools were not convinced that they could arrange for the rest periods which we felt were so essential for satisfactory progress; only about 25 children were given complete physical examinations during the year, because of the limited time of the board of health doctor.

Milk Was Supplied to Malnourished

For a number of years milk had been furnished to undernourished children by a local organization without any follow-up work to determine the amount of improvement, or home visits to give instruction in proper food and health habits. No effort had been made to remove the physical defects which retarded children's progress.

We got the local organization to agree to advance the money for the milk in the two schools, providing that we should obtain payment, whenever possible, from the children. Formerly all milk had been given without reservation to the children requiring it, but we determined to avoid the pauperism that must follow such a course. At the end of a year we returned over 80 per cent. of the money.

Usually, it was necessary to convey all information through an interpreter, a child or a neighbor who could speak a little English, but we found that mimeographed copies of model dietaries and health rules were of great assistance in arousing the interest of the parents. During the second year of our work in Honolulu, the *Nippu Jiji* and the *Liberty News* were so generous as to print in Japanese and Chinese a daily program for an underweight child.

One Chinese mother said she would be glad to have an American cook book.

The American bed is unknown among the orientals—they attempt to find repose on raised wooden platforms covered with straw matting. There are no sheets and pillowcases, and soiled blankets are the only covering. Most of these platform beds are surrounded by heavy curtains or netting which shut out light and air; the curtains are considered a protection from the evil spirits. The Japanese and Chinese did not protest when I took the curtains down, but I have no doubt that they were replaced when I left the house.

Impossible to Count Calories Consumed

We were confronted by many obstacles in attempting to count the calories consumed daily by the children in our classes. None of our handbooks had the caloric value of various Hawaiian foods—water lemons, bird's nest soup, papaiia, guavas, mangoes, alligator pears, and other oriental fruits and vegetables.

Their culinary methods were most unique. I soon found that it was useless to expect a child to make an accurate record of his diet when there were no utensils suitable for measuring in his home. I recall many amusing experiences in giving cooking demonstrations, such as making scrambled eggs with chop-sticks, stirring oatmeal with a carving knife, and making cocoa on a charcoal brazier 8 inches in diameter and placed on the wooden floor. Occasionally I found kerosene stoves in the homes, but the usual equipment was the brazier or a sheet iron stove in the back yard, resembling a crude camping outfit.

It was almost impossible to make any radical changes in the diet of rice, pork, and pickled vegetables, but we did endeavor to teach the great importance of milk and cereals. We could not change the native diet, but we could make additions. These were reflected on our weight charts by satisfactory gains. We laid great emphasis on protective foods—milk, eggs, and leafy vegetables.

Cosmopolitan audiences attended my cooking classes at one of the schools—the Hawaiians in holohus, the Japanese in kimonos, and the Portuguese in nondescript summer attire. One little Japanese mother opened her eyes in delight when she saw aluminum molds filled with strawberry gelatin. A week later she learned to make French toast, and when I saw her afterward she shook her head uncertainly, "Keiko-kyoko—too much like."

One of the most interesting cases was a little Japanese boy who suffered frequent severe attacks of asthma; he was obliged to stay out of school about one half of the time. After a medical examination, the doctor decided that his only hope lay in sufficient rest and proper food. The boy lived with a brother and sister-in-law in a tiny cabin about 2 miles up in the Kalihi valley. The long walks each day, in addition to his restricted diet of rice and pickled vegetables, had sapped his vitality. Through the nutrition class, Haruichi began to realize that he should change his mode of living. It was arranged that he should stay with his uncle in town. He learned to eat oatmeal, and to drink one quart of milk each day; he gained 19 pounds in about twelve weeks. His asthmatic attacks became less frequent and he was able to attend school regularly.

The candy vendor was my worst enemy. He stood just outside the school grounds and took the pennies that the children brought for their lunches for shaved ice with artificially colored syrup poured over it, candies and snails. It was easy to detect those who scorned the school lunch for the candy vendor's wares; their weight lines always dropped.

Although a lack of home control was apparent, we found the Japanese receptive to new ideas, and willing to spend his money for anything beneficial to his children. The Chinese is more conservative and extremely superstitious; he has a horror of operations. The Portuguese never recognizes anything wrong with his children as long as they can run about, and resents any suggestions for their welfare. One mother, who had two underweight children in my classes, remarked indifferently that she usually had 2 quarts of milk every day, and what the children did not drink she threw away, because otherwise it got sour.

The Hawaiian child is fond of poi, a sort of thick gruel made from the taro plant; this is low in caloric value. It is difficult to supervise his food and health habits for he seems to have no permanent abiding place.

The third factor in malnutrition—overfatigue—is a problem in Honolulu. The long hours of sunshine are conducive to overexercise. The day school is over at two o'clock, and ball playing and swimming consume the afternoon. There was almost no opportunity for the children to obtain the rest which is essential.

Our second year in Honolulu we began a weight-height survey of all the public school children. The result of our survey showed that 36.5 per cent. of the school children were 7 per cent. or more underweight.

Following the demonstration among school children made in those two years, a bill was passed in the legislature establishing a nutrition department in the Hawaiian Board of Education. Our work was no longer rated an experiment; it was an accomplishment of proved worth. Nutrition work is now being rapidly developed in many other islands in the mid-Pacific under the direction of a territorial supervisor.

Hawaii sends "Aloha" to the United States, and hopes that her progress may inspire every community in the mainland to follow her example in building up a healthy, happy citizenship.

Helping the Child Adapt Himself

The Work of the Child Guidance Clinic

SMILEY BLANTON

ONCE UPON a time there was a small girl, 3 years old, who was the only child in the family, and the only grandchild and niece. She had every chance to be spoiled and babied, and being an intelligent little girl, had taken advantage of each golden opportunity. When she wanted something, it was always forthcoming, and if it were not forthcoming fast enough she would make the fact known for miles around!

The child's family was upset by her tantrums and ran around in circles trying to stop her crying. "Give her a lump of sugar to suck," one of them would call, "maybe that will pacify her." "Take her out and put her on the horse," some one would suggest. "Take her out to the big gate where she can see the wagons go by and see if that won't pacify her," some one else would call out.

This little girl was developing into a sharp trader on such occasions; she was also becoming a tyrant! Still the family thought her trick cute and natural for a baby.

One day the baby stopped in the middle of a wild scream and said, "Give me a lump of sugar; maybe that will pacify me." Then the family woke up, and began the slow and painful process of unwinding the grasp of this little child in her selfish domination over all the family.

It was not the fault of the child; yet it was the child who would have to suffer for the thoughtlessness of the adults in the family. It was not the fault of the grown-ups either.

There are few persons who realize that pampering, indulging, and training a child in the habits and ways of domination are inadequate training for life and are destructive to the child's mental health and emotional adjustment.

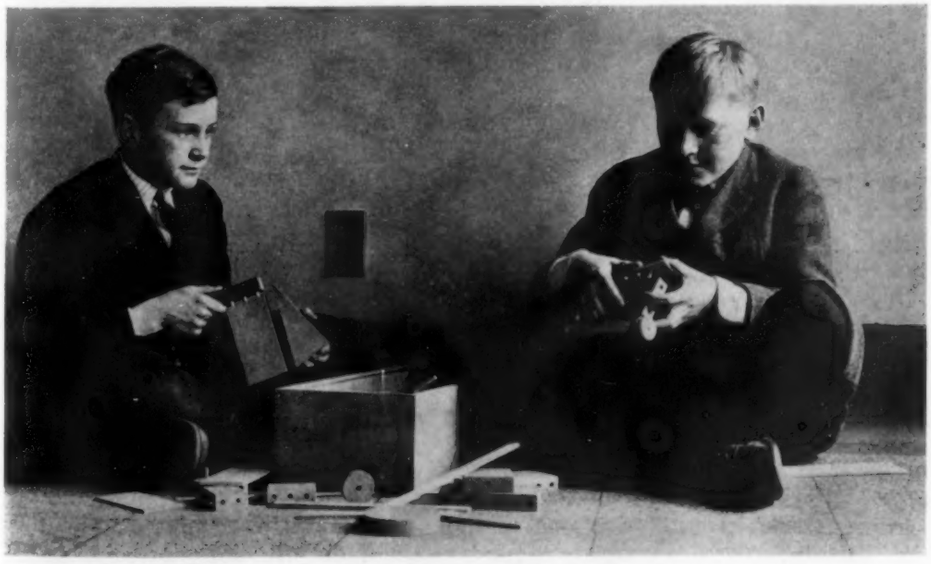
The Child Guidance Clinic Helps

A child guidance clinic deals mainly with just such mild indications of emotional difficulties.

If parents can be helped to see that such irregularities of behavior in a child are not clever, but at the same time are not necessarily amenable to strong arm methods, then a long step in the direction of mental health will have been taken.

When a child guidance clinic is established, it must be kept in mind that the child is the patron of the clinic. As far as the physical equipment is concerned it must be such as to gain the confidence of the child. That does not mean that the whole place has to be painted in pale blue and decorated with Mother Goose characters. What it does mean is that it must be unhospital-like and unoffice-like, and cheerful and homelike in equipment.

The Minneapolis Child Guidance Clinic is fortunate in having beautiful quarters in an open air school hospital. The quarters of the clinic can be entered without coming through the school hospital. The large, sunfilled windows, nice woodwork, mahogany and wicker



The child guidance clinic attempts to find a child's real ability. These boys are having their mechanical ability tested.

furniture, and the unmedical appearance of all the rooms visible from the hall gain the confidence of the child at once.

In addition to offices, waiting rooms, and examining rooms, there is a lovely sandroom with pictures, toys, and animals of wood, so that the hour spent under examination is pleasant to the child and is of such a nature that he is glad to return.

Who Patronizes the Clinic

There are children of all ages at the clinic—from preschool to the last year in high school; from children just starting in the business of living to those about to tackle the problem of self-support. Such a clinic, to be of value to a community, must serve the whole community and not just that portion that has come into conflict with the authorities. It must serve the courts in the care of the child who is in grave difficulty and it must serve the child who is unhappy, or who is in need of guidance and assistance in the adjustment of his so-called minor difficulties.

Children come to the clinic for all sorts of reasons, and because of all sorts of symptoms—temper tantrums, inability to get along with other children, night terrors, and speech disorders—at home or at school.

The milder symptoms do not necessarily indicate the milder difficulties. To illustrate: A boy about 6 years old walked into my office. Before a word of greeting could be said he announced in a decisive voice, "I am as tall as you are."

When he was asked how a boy of 6 could be as tall as a grown man, his answer was, "Well, anyhow, I can count." He proceeded to count to twenty with much rapidity and little accuracy. It did not take a profound analysis to know that this small boy was badly adjusted; that for some reason he was not confident and secure in his knowledge of his own value.

Such a "bumptious" reaction indicates that the child is overcompensating for a sense of insecurity, just as whistling when one passes a graveyard at midnight does not indicate fearlessness, but the opposite.

The work of such a clinic requires a staff that includes a physician who is a psychiatrist, a psychologist, and several social workers.

It is essential, in order to understand the child, that the clinic shall understand the parents, brothers and sisters of the child, and the home and environment in which the child lives. This does not mean that the child with the best mental health necessarily comes from a wealthy and richly endowed home. The healthiest and happiest child, from the standpoint of mental hygiene, is usually one who comes from a comfortable, but not a rich home, and a home in which the house itself is to be lived in and enjoyed by all members of the family.

Possibly the most essential thing to the child's mental well-being is a happy relationship between the parents. Parents who are glossing over, for the sake of the child, a real antagonism for each other are rarely capable of the evenness of discipline and cooperation necessary to the child's development.

But unkindness or lack of love for the child is often not a bit more destructive than too much love and solicitude.

Sometimes parents are more demonstrative toward one child than they are toward another. Even though they may not love one child more than the others they often pet and brag about him more.

A girl, 5 years old—a very moody child—became seclusive and unhappy and no longer cared to play with children, but sat brooding, and even weeping. Careful study of the home situation showed that this girl felt herself neglected by her parents because her younger sister, who is superficially brighter and more vivacious, received all the attention from the teachers, neighbors, and relatives.

If such a condition had been allowed to go on the older child might have grown up with a marked feeling of jealousy toward her younger sister; moody, unhappy, and perhaps bitter toward every one.

Another interesting case was that of a little girl who was absolutely negative to all commands. It was difficult to understand the extreme negativism of this child until we obtained a whole record of the family situation.

The mother was an anxious person and nagged the children constantly. As a result of this, the child not only refused to obey any commands, but always did the opposite of what her mother told her to do.

This attitude on the part of the child was a perfectly normal one under the circumstances. It was the only way she had of defending her personality against the constant nagging and flood of unwise commands.

In addition to a knowledge of such facts as the family situation and attitude, there must be a careful study of the child himself. A psychological examination is made to determine the type of intelligence with which the child is endowed.

The object of this examination is not to determine if the child is feebleminded, as feebleminded children are cared for through another agency of the school system, but because it is just as important to know the amount and type of intelligence of the normal and superior child as it is to know the amount and type of intelligence of his less fortunate brother.

It is frequently found that superior children have a difficult time in the schools, because the school systems are, of necessity, "gaited" more or less to the average child. This is true also with regard to children who have special abili-

ties and capacities and who, for this reason, run ahead of their classes in some work.

Not long ago a boy who was doing poorly in his schoolwork was referred to the clinic. It was felt that he could do much better schoolwork and the teachers wanted to find out his exact trouble. The psychological examination showed that the boy had an "intelligence quotient" of 150, which means that his mental age is five or six years above that of his physical age. The classroom work, to him, was so dull that he had no interest in it.

Another case was that of a boy whose psychological test revealed him as having remarkable mechanical ability. He was rather poor in his abstract thinking. By arranging his course in such a way that he could find an outlet for his mechanical ability he was able to get along successfully in school.

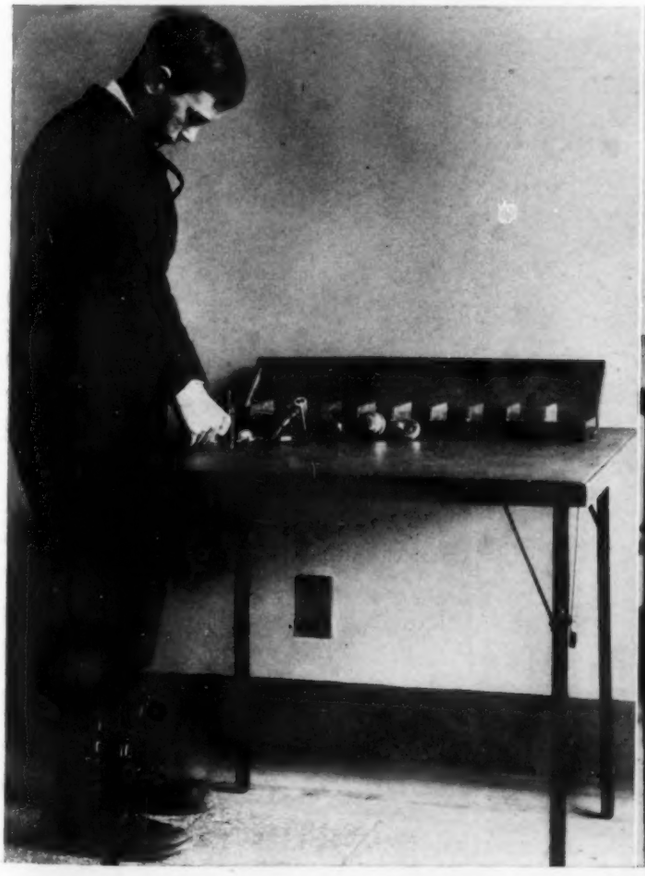
Children are often found who have so-called special disabilities in spelling, in reading and in arithmetic. Most psychiatrists now feel that there is no real inherent mental defect in these cases, but that the main difficulty is some emotional conflict that prevents the child from getting a certain subject.

One boy of ten was considered to be absolutely defective in his arithmetic and number work. A psychological examination showed that he did not know how to do long division. He had been absent from school when the class had taken up this phase of the work, and he had never received instruction in it. As a result, he began to fail in his arithmetic, and there grew up in his mind a feeling of failure, of inadequacy—a feeling of inferiority concerning his arithmetic.

To study and direct human behavior adequately it is necessary to feel that all the human being does, and is, and feels is vital and worth the work involved in order to understand it. It is important, in judging a child's behavior, to know, (1) what is his physical condition, (2) what is his mental equipment, (3) what is his physical environment, (4) what is his psychological environment and (5) what has been his experience of life.

It is necessary to talk to the child himself, not merely to talk about him. It is necessary to discover how he thinks, how he feels, what is his viewpoint on life, and what is his attitude toward life; and, if he has misbehaved in some way, what is his attitude toward his misbehavior.

After the cause of the child's faulty type of behavior has been found out, and his capacities for meeting life have been studied, then a plan must be worked out for the modification of his behavior so that he may be happy and serviceable in his social relationships.



Studying the boy's constructive ability.

Giving a mental test.

Learn to Play Safe and Avoid Accidents—

Parents should teach children to keep away from the medicine closet. If the closet is not out of reach, it should be locked.

Porch climbing may sound exciting, but it is not so thrilling if you fall. Learn to play safety.

Don't play bandit with a gun. It is possible that the gun is loaded.

Photos by International

A Few Important Don'ts for Boys

Don't climb electric light poles. Not only is there danger of falling, but there is danger of touching a live wire.

This small boy has no time to open the gate and walk out, he prefers to climb over a pointed fence. If his foot slips he can seriously injure himself.

One of the most dangerous practices of boys is hitching on the back of a motor truck. If the man driving stops suddenly, he may jar the boys and loosen their hold.

Photos by International

Lunch Time at School

MARY AGNES DAVIS

THE LUNCH hour at school is the one hour of the day in which no guidance is offered to the children in many schools, because no provision has been made for a school lunch. Children eat a cold lunch which has often been prepared hastily in the morning from what could be picked up from the breakfast table; to this is added a piece or two of pie left from the evening meal.

The wrong kind of food is not the only evil that arises from no provision for the lunch hour at school. The children often congregate in groups, eat in unclean places and indulge in questionable conversation.

The school lunch that is functioning as a school lunch should do more than give children something to eat at lunch time; it must give them the right kind of food and teach them how to choose food intelligently; it sends, through the children, information regarding food into the homes.

Many homes do not provide the right kind of food, not because they are not willing, but because they do not know what should be provided in order to obtain the best results from the amount of money spent. Through the school lunch a child learns that food has a money value.

If the menu for the following day's lunch is placed in a conspicuous place, the children will notice it and talk about it at home. This not only shows the child how much money he will need for lunch, but carries a discussion of food into the home, the very thing that the conscientious school lunch director wants.

Serve Something Hot

The school lunch does not have to consist of an elaborate menu; a menu that requires an unusual amount of time for preparation is unnecessary. Something hot, cocoa or soup, is a valuable addition to the sandwiches and fruit brought from home. If there has been no provision made for the preparation of a hot lunch at school, cocoa and soup can be prepared before school and reheated at lunch time.

The menu should be simple and short. Milk, eggs, cereals, vegetables and fruits should appear on every school lunch menu. It will make no difference then if a child does eat two desserts, if the desserts contain the food he should have.

Children will learn to choose food wisely and without mistake if the choice is small. A small choice permits of a greater variety of menus and therefore less repetition of the same dishes. Children, just like grown folks, lose interest in food when it appears in the same form each day. It is true that the same foods are needed every day, in many instances, but these foods should be used in different ways.

Environment Is Important

The lunchroom is an important part of the school lunch, for there children learn by example. Through the luncheons served, they learn food education and cleanliness, good manners and the value of association one with another.

The environment in which food is served is quite as essential as the food. The lunch time should be a happy time. It is the one social hour of the school day for the child, and it affords a chance of sociability between teacher and pupil on a common ground. It gives the teacher an opportunity to know her pupils and to find out by personal contact what type of citizens they will make. The well-organized school lunch gives the child an attitude of helpfulness toward his fellows through daily contact.

The lunchroom often is unattractive in appearance, thus casting a cool atmosphere over the lunch hour. The school dining room needs just as much thought and care in decorating as does the dining room at home. A cozy, comfortable dining room creates a restful atmosphere. With the cooperation of the various departments, a school lunchroom can be made attractive with little extra cost.

Does your school maintain a school lunch? If it does, see that the woman in charge knows about food and food values and is interested in the welfare of children. If you do not have a hot school lunch in your school, you should do your part to enlighten the patrons of the school. The school lunch is as important to the child and his welfare as learning arithmetic, history and language. With the aid of the school lunch he will be better able to make progress in his academic studies; he will grow into a better citizen because he has learned some of the fundamental laws of society through contact in the school lunchroom.

When You Complain of "Biliousness"

DOUGLAS VANDERHOOF

SOME YEARS ago a gentleman entered my consulting room with the remark, "Doctor, I am the most bilious man in the state of Virginia." He described a train of symptoms consisting of headache, foul breath, coated tongue, constipation and chronic fatigue, and concluded his story with the statement that he had taken calomel for four or five years, but it afforded him only temporary relief. A complete examination disclosed the fact that this patient was healthy except for a chronic pus infection in the nasal sinuses. He was referred to a nose and throat specialist, who operated and drained the infected sinuses, and a happy result was obtained; all the symptoms of "biliousness" promptly disappeared and have not recurred.

A gentleman sought relief from an "attack of biliousness" which had continued for ten days. The chief symptom was dizziness; his malady immediately vanished when a mass of impacted wax was removed from one of his ears, where it had been pressing against the ear drum.

A young school teacher was sent by her family physician to be examined and treated for an aggravated case of "torpid liver and biliousness," accompanied by headaches, nausea, vomiting and constipation. Proper eyeglasses for an unsuspected eyestrain relieved the headaches and gastric disturbance, and the constipation responded to simple instructions in regard to diet and water drinking.

A business man had a "bilious condition" of five months' duration, characterized by nausea and vomiting every morning when he first awakened. General malaise, bad taste in the mouth and loss of appetite were other symptoms. He felt feverish in the afternoons, was apt to have headaches and had a rather frequent cough, attributed to cigarette smoking. Complete examination disclosed a moderately advanced pulmonary tuberculosis.

Humors, Bile and Melancholy

Strange as it may seem, practically no mention is made of the word "biliousness" in any of the modern textbooks on medicine, and search through the complete index of *The Journal of the American Medical Association* for the last ten years does not disclose a single reference to the term. In all probability sick individuals still feel "bilious," and a large percentage of them either dose themselves, or are dosed by well-meaning but thoughtless doctors, for supposed liver insufficiency.

Medicine, as an art, still contains many relics of superstition and magic, and is in part hidebound by ancient beliefs and theories. Among the Greeks, in the days of Hippocrates, disease was a matter of humoral pathology, and among these humors the bile was thought to play an important part. Witness our word "melancholy," which literally means "black bile," and our more or less common expressions, "torpid liver" and "biliousness." We no longer ascribe lunacy to the effect of the moon (Luna), and do not attempt to treat it with lunar caustic, as was once done, but we still prescribe "liver medicine" for "biliousness" as a specific remedy for a hypothetical malady of the liver.

Biliousness Is Not a Disease

What, then, is biliousness? Is it a disease, and is it associated in some way with disturbed liver function?

Biliousness is not a disease. It has no essential connection with the liver or bile ducts, but is a term used by the sick individual to describe a group of symptoms characterized chiefly by headache, dizziness, coated tongue, "indigestion," with or without vomiting of bile, constipation and general malaise.

In the majority of cases, the person who feels "bilious" is suffering from poisoning, which may be a transient phenomenon or a chronic state. The boy who smokes his first cigar presents a typical picture of acute "biliousness" but we call it nicotine poisoning. Chronic focal infections in various parts of the body—about the roots of the teeth, in the tonsils and nasal sinuses, in the lungs, gallbladder or kidneys—give rise to toxic absorption that frequently masquerades under the term "biliousness." Local ear affections, with disturbance of the equilibrium sense in the semicircular canals, cause a good deal of dizziness which is often misinterpreted. A seasick person looks and feels extremely "bilious," but we now know that the motions of the ship have affected the sensitive equilibrium apparatus in the internal ears with most unpleasant consequences. Sufferers from migraine often attribute their periodic sick headaches to "biliousness." Chronic infectious diseases, such as tuberculosis and syphilis, give rise to various toxic symptoms and are frequently treated for supposed liver insufficiency

until proper examination reveals the true nature of the malady.

To the surprise of many laymen and perhaps of not a few physicians, it should be explained that all modern research has shown that the liver has really very little to do with the regular movements of the bowels. The bile, it is true, has certain important functions, among them the proper emulsification of the fat in the food so that it can be readily absorbed from the intestines. As the result of certain diseases or operative procedures, no bile may enter the intestines, but escapes to the outside of the body through a fistula, and yet, in such instances, the patient may not be constipated. As a matter of fact, he may have a tendency to diarrhea, due to an excess of unabsorbed fat in the intestines.

Purgatives Have No Effect on Liver

Purgative drugs have no effect on the liver. A purgative acts as an intestinal irritant. Nature abhors an irritant and in getting rid of the irritant the intestines also get rid of whatever else is in them and one or more evacuations result. The extensive experimental researches of Dr. George H. Whipple, in this country, and the x-ray studies and clinical observations of Dr. Arthur F. Hurst, in England, abundantly confirmed by other investigators, have put an end to the old-time theory that purgatives have reason to be regarded as "liver medicine." Dr. Hurst says: "Mercurial purgatives were formerly believed to act by increasing the flow of bile, but observations on animals and on men with biliary fistulas have shown conclusively that they have no action on the liver. The belief arose from the fact that green stools are sometimes passed when calomel has been given; this is now known to be due to the prevention of the decomposition of the bile by the antiseptic action of the calomel and not to any increase in the flow of bile."

Laxatives, purgatives and cathartics have a very proper place in medicine, not as the "liver pills" or "liver medicines" of the patent medicine advertisements, but as intestinal irritants to compel the bowels to evacuate their contents. The very fact that they are irritants explains the inevitable train of symptoms that sooner or later develops in the purgative habitué, symptoms that often may be relieved by proper treatment directed to the cause of the constipation habit.

Many Reasons for Coated Tongue

Many other conditions play a rôle in the careless and haphazard conception of "biliousness." For example, 62 per cent. of healthy people have coated tongues. If, however, a person has nasal obstruction that causes mouth breathing, if he smokes, if he has a high-arched palate so that the tongue does not come into contact with the roof of the mouth, if he is of that nervous type that has a sticky saliva, these, as well as other local causes, often make the tongue coated. Over fifty years ago Dr. Oliver Wendell Holmes advised: "It is far better to clean the tongue with a small silver hoe or some other mechanical device than to take purgatives for a hypothetical liver disturbance."

A heavy, unpleasant or foul odor to the breath is almost always due to local disorders in the mouth, throat or nose. Pyorrhea about the teeth undoubtedly accounts for most instances of foul breath, but it may arise from decayed teeth, diseased tonsils, so-called "catarrh" of the nose, which is in reality chronic infection in the mucous membranes of the nose and sinuses, and from chronic pharyngitis. Less frequently, characteristic odors may be imparted to the exhaled breath by certain diseases of the lungs, in Bright's disease and in the acidosis that may complicate diabetes. Affections of the liver, stomach and bowels rarely, of themselves, impart any odor to the breath.

When a person feels "bilious" he is really toxic from some cause, most often as the result of a chronic focus of infection some place in the body. Less often he is suffering from a chronic infectious disease or has some disturbance of the ears or eyes. Chronic constipation, due to a variety of causes but bearing no relation to the liver, gives rise to toxic disturbances much less frequently than is generally supposed, but does cause a symptom-complex.

The person who complains of "biliousness" has a condition which requires proper examination and study. Ninety-nine times out of one hundred the cause of the symptoms will be found in some part of the body other than the liver.

Girls' Basketball—for the Few or the Many?

GRACE B. DAVIESS

THE AMERICAN girl is athletic in ability and in tastes. She wants to play games and does play them, and it is necessary for her to have the right opportunity under trained supervision. She should learn good sportsmanship from the start.

Girls play different types of basketball. The school or industry decides on the type. High schools in small towns are playing a definite schedule of intercompetition games with schools in surrounding towns. This competition between schools was started because the school was small, and it was thought that only one team could be obtained from each school. If a school has a resourceful physical education director, she can stimulate enough interest to keep at least two teams going. A precedent of interclass games soon establishes itself with the incentive of the point system, the school monogram, and an all star game at the end of the season as the goal. Even in small schools, each class can have a team. If the enrolment is extremely small, sister classes can combine in teams and a short schedule of the two teams so formed can be played. Thus the physical and educational benefits of team games can be enjoyed by many girls.

When high schools have a varsity basketball team which plays other schools, the team is often asked to go great distances for games. This creates a difficult problem, for the team must be transported economically and comfortably. Usually the team arrives tired out. They have eaten a poorly cooked meal en route, and the game must begin at once. They may find, but a few minutes before the game starts, that there are certain variations in rules to suit the home team, and certain adaptations in floor rules to suit the home floor. The result is a poor game. I have known a girl's basketball team to play three court girls' rules one week, modified rules the next, and boys' rules the next.

Girls' guarding is a puzzle that often is never solved by a guard if she has a man coach and poor referees at the games. The National Amateur Athletic Federation has gone on record as recommending that the coaching of girls should be in the hands of well-trained women. The man coach usually has a team of girls as extra work, and even if he trains them well on technique, he cannot be expected to understand much of girls' guarding or the care that should be taken of girls. The woman in charge should be well trained, otherwise she will care for the girls but will not have a good team.

Athletics for All—Not Few

The trend of physical education today is work with the masses, not just the few. Instead of an instructor perfecting a star, her attention should be divided among all the girls. If games train in sportsmanship to the extent that we all believe, then this advantage should not be limited to one varsity team, but should be extended to as many as an interclass series can accommodate. The great justification of athletics, besides the physical exercise, is the training in team loyalty and sportsmanship—qualities which carry over into all phases of life.

In a varsity team playing in interschool competition, the great temptation is to use the best girl in order to win the game. Often the best girl is used to the detriment of her health.

International

The National Amateur Athletic Federation has gone on record as recommending that the coaching of girls should be in the hands of well-trained women.

International

Captains of their respective teams talking things over before the semifinal games in the National Interscholastic Tournament. Team loyalty and good sportsmanship are qualities that can be developed in school games and carried over into all phases of life.

It is a physiological fact that the keener the competition, the greater the nerve tension on the participant. These interschool games become very hotly fought, the main aim being to win. When this is so, much of the technique of the game and the fun of playing it are thrown to the winds.

In addition to a definite schedule of interschool games (at least one a week over a period of three months), each county usually has a two day tournament with the same teams competing. The teams that have played each other once or twice meet again for an elimination contest in order to find the county champion team. This could be done with less expenditure of energy and money if the county would make a record of the scores of all the teams during the school year. They could then determine the winning team, and publish the fact in local papers.

Guard the Adolescent Girl

These tournaments are not money making affairs, in fact, it is difficult to make expenses. The winning teams play from four to five games a day in a hot gymnasium before a mixed audience that urges the players on to grand stand plays and roughness. This is an insult to intelligent instructors who have the welfare of their students at heart. It is the adolescent girl of whom I speak; she should have every care taken of her, and if properly supervised, the games she plays can be for her good.

Various industries in the larger cities have girls' basketball teams as advertising schemes. Girls are hired because of their ability to play basketball. Very often they are given easy positions with the understanding that they represent the firm who employs them on the basketball floor. These teams usually play boys' rules and before large audiences. As a result, there is much unpleasant exploitation and newspaper notoriety. The girls play hard and lose hard, and are surrounded by an atmosphere of artificial excitement.

The basketball leagues in many of our big cities show the best conditions under which intercompetition games can be carried on. In these leagues there is a definite attempt to play good rules under proper supervision. To be a member of the league, a team must conform to standard rules. But even in league-controlled intercompetition games, many evils still exist—physical strain on the girls induced by the excitement of keen competition, audiences that are hard to regulate.

Intramural Games vs. Intercollegiate Games

The great majority of colleges are against intercollegiate athletics for girls. The College Directors' Association, the National Amateur Athletic Federation, and the Women's Athletic Association all take their stand against intercompetition. These organizations feel that an intramural schedule (a schedule within each college) is best. The same principles can be applied to high schools.

There are many advantages in an interclass series; many girls can be used in the games; playing is on the home floor before a regulated audience; there is practically no nervous strain; only the girls in good physical condition are used in the games. Interclass games are played for the love of the game; they develop good winners and good losers.

The basketball game that is meriting rising popularity among the girls is the six girl, one line game, three guards and three forwards, with two opposing forwards jumping in center.

The outstanding needs at the present time are uniform rules, well-trained women coaches, and better referees. A poor referee can ruin a good game; a good referee can raise the standard of a poor game. More consistency in refereeing is needed, and this will come when officials understand the rules and referee both in the letter of the rule and the spirit of it. The National Committee on Girls' Basketball is trying to better these things.

Training the Child's Physical Functions

SAMUEL AMBERG

ONE OF the most difficult problems for a young mother is training the child's physical functions, including proper control of the elimination of its excretions.

Most children learn to use toilet facilities by the age of one or 2 years. In some cases, they continue to soil themselves to the age of 12 or 13 years; it may be a continuation from infancy or it may begin after a child has been trained. Wetting of bed clothes or the clothing may occur only at night while the child is asleep, during the day when awake, or both. The day form of the malady may shift into the night form, or the reverse may happen. The wetting may be associated with frequency and urgency. It may occur nearly every night or periodically. It may occur more than once in a night, either at regular periods or irregularly. If but once, it usually happens shortly after the child falls asleep or else toward morning. When the trouble appears after a child has been trained, it may be caused by an infection or an illness which keeps the child in bed for a long period. It sometimes appears after operation for removal of the appendix or the tonsils; circumcision may be a factor in its appearance. Initiated under such conditions it may persist but usually does not.

Normal urination is set in motion by the filling of the bladder from the kidney through the ureters. When the bladder walls are stretched to a certain extent, desire for urination and contraction of the bladder occur. When the contraction of the bladder reaches a certain point, the bladder opens and urination starts, provided it is not prevented by voluntary effort. Normally, urination does not occur without the intervention of the will. When it occurs involuntarily, the sensation may be at fault or the closing apparatus of the bladder may not function properly. The mechanism is by no means fully understood, particularly the manner of control during sleep. With more knowledge, we may expect better results from treatment in many cases.

In about 50 per cent. of cases a cure can be effected by one method or another, but any one method can hardly be expected to be efficacious in every instance. Many of the children with this habit are neurotic, irritable, and easily fatigued, with or without further signs of nervous disturbance. They may be more or less anemic, and may show a lack of control by cold, clammy hands and feet, by getting blue easily, and by poor reaction to cool showers or baths. In such cases, the usual measures for correcting these faults may exercise a beneficial effect on the habit. The removal of such irritations as pinworms sometimes gives relief. Acidity of the urine is not an adequate cause of irritation since it is doubtful whether acid urine can cause irritation of a normal bladder.

The measures to combat wetting may be divided into those that check the secretion of urine, thereby retarding the filling of the bladder as much as possible, and those whose object it is to correct the mechanism of urination in its widest sense. A strapped on urinal has no use except to protect the clothing. It has often proved advantageous to limit the intake of fluid during the afternoon and to give a light supper, with as little fluid as possible, no later than 5 p. m. Vegetables and fruit or any food containing much liquid should be avoided; toast or zwieback with some butter, or a dry cereal with a small amount of cream or milk may be given. Secretion of the kidney is delayed in some children when starchy food, rather liberally salted, is given. The wetting shortly after going to sleep may be avoided by this treatment.

Secretion of urine may be avoided in some cases by placing the child on his back and using pillows to keep the knees flexed at about 45 degrees. The back should be propped up so that the body curves slightly forward. The early wetting may be avoided by putting the child in this position for about two hours, letting him play or read in bed and finally void before going to sleep. Exposure of a child to cold by insufficient bed covering favors wetting the bed.

When the capacity of the bladder is small, dilation sometimes helps. The child drinks a quantity of water and then holds the urine as long as possible. Results may not be immediate. The aim of distention of the bladder is to restore its normal mechanism. In some cases the administration of medicine may be an aid; physicians prescribe atropin to diminish the contractions of the bladder and reduce its tendency to respond to distention.

Treatments by electricity are recommended in certain types of cases. Distention of the bladder with solutions of silver nitrate of increasing strength has been employed to stimulate the

sensory irritability of the bladder. Injections of salt solutions into the sacral canal have sometimes been helpful.

Many physicians value suggestive therapy. If used at all, suggestive therapy is directed against the nervous tension or more precisely against the wetting. One of the favorite methods is to have the child repeat several times before going to sleep a sentence similar to this: "I will not wet the bed." A paper with this sentence is put under the pillow. It is very important that suggestive therapy be carried out with great earnestness and ceremony to gain impressiveness.

When training a child to overcome bed wetting, it is well to take him up one or more times at night and allow him to empty the bladder. If this is done without thoroughly arousing the child, it usually accomplishes no more than to protect the clothes and avoid offensive odors. The child must be completely roused, but that is not always easy, because children sleep soundly. Great depth of sleep has been acknowledged one of the factors in bed wetting. It is especially difficult to awaken a young child by loud noise, and considerable stimulation of the skin may be necessary to bring about the desired result. Glaring light is helpful.

The child should be roused at regular intervals, frequent at first and then gradually lengthening the periods, until the bed wetting is stopped. A child may also be made to empty the bladder at regular hours during the day. Urination may be stopped and started at command. These measures are intended to emphasize all the sensations accompanying urination, especially its beginning, and to develop control.

Parents occasionally resort to physical punishment. That is of benefit only in rare instances. Excessive scolding, nagging, and shaming the child are to be avoided. Disciplinary measures, however, are at times useful, especially where the lack of control is associated with indifference, as happens frequently in older children of high intelligence. This indifference is not limited to the wetting, but manifests itself in slovenly physical, as well as mental, habits. Correction of bad habits may show an improvement. The usual means of punishment may be adopted—withdrawal of privileges, curtailment of liberty. Punishment should never be administered in anger. A great deal of patience and consistency is required in handling a child who is not able to control elimination. It may be advisable in certain cases to insist that the child wash the soiled linen himself. A modified spanking may be employed by actually inflicting pain immediately at the time of wetting.

A change of surroundings is often beneficial. The child's room may be changed or he may be separated from children with whom he has been accustomed to sleep. More frequently a complete change is necessary, such as admission to a hospital where visits from the family and friends may be forbidden. If the wetting recurs on the child's return home, readmittance to the hospital may be necessary. In the hospital, the child should have an unusual amount of rest and lack of excitement. Indeed, it is advisable at times to put him to bed for a few days. If the child returns home, resumes all the former activities, is exposed to the same influences as before, and gets overtired and fatigued, it is not surprising that the wetting should recur.

The desired mode of life can be adopted without hospital treatment, but this is frequently the simplest solution of the problem. A nap or rest after the midday meal, which should be the main meal of the day, is frequently of great help in avoiding overfatigue. The child should be entirely undressed, put to bed in nightclothes in a dark, quiet room, and kept quiet for at least an hour. A nap of this length does not interfere with the night's sleep. Regular hours are necessary; additional lessons should be avoided; attendance at movies and parties should be reduced to a minimum, and the child should not be permitted to perform before an audience.

When choosing a method of treatment, it must be kept in mind that not all cases are alike. The possibility of carrying out any treatment must be considered thoroughly. When the decision has been made as to the type of treatment (it may consist of a combination of methods), it should be undertaken patiently and earnestly, without relaxing vigilance until the treatment has received a thorough trial. This may take some length of time. Half-hearted treatment not only defeats itself, but makes later treatment more difficult.

Many of the measures mentioned should be carried out by a competent physician, and in no instance should treatment be undertaken without previous medical examination of the child.

Taking Care of the Child's Skin

The Skin of the Growing Boy and Girl

HERMAN GOODMAN

THE SKIN of the growing boy and girl presents problems which are distinct to that particular period. The son or daughter is no longer a child. The diseases of infancy, the blemishes considered as birthmarks, the adaptation of the skin to environment have all been successfully passed; a new array of dangers must be met.

Approaching maturity and the increased activity of the glandular apparatus may make itself evident on the skin by blemishes of the complexion. The growing boy, and more particularly the growing girl, magnifies each little blackhead, picks the face with the fingers, infects the blackhead area, and causes unsightly blemishes to appear. Indiscretions in diet, improper washing, and carelessness in personal habits cause additional imperfections in the skin.

Diet Plays an Important Part

Pimples persist, if untreated, until the age of puberty is successfully passed. Oftentimes boils and resultant scars may give distress if not treated. Acne is preeminently a disease of youth, but it may pass on to adult life. Acne cannot be prevented, but the undesirable results of too much candy, too free inbibing of soda water, too many chocolate nut sundaes, and an excess of rich, greasy foods may be avoided.

The glands of the skin and the scalp partake of the general glandular activity of the body; they may, at this period of life, secrete too much oil. As a consequence, a scaly condition of the scalp and the skin of the face, chest and back may occur. Proper hats, careful washing, the right kind of comb (one that has no sharp teeth), are helpful in avoiding extra oiliness.

Some form of outdoor exercise is essential to good skin health. Walk to school or work on the sunny side of the street, fill the lungs to capacity, and take a springy light-hearted step. After school, the parks and playgrounds offer opportunity for outdoor recreation.

The boy and girl attending school may be exposed to animal parasites. The most common of these are parasites that affect the hairs of the scalp. Particular attention should be paid to cleanliness of the hair and the scalp. Children should be warned not to exchange hats.

Adventuresome boys, climbing about and falling down, may suffer cuts and bruises. These are usually not serious of themselves, but care should be taken so that infection does not take place. A common infection without antecedent injury is known as contagious impetigo. Despite its easy eradication with proper treatment, ordinary home remedies seem to have little effect. This infection is contagious, but is a disease local to the skin and without general effects on the body.

Ringworm is a vegetable parasitic disease which is not uncommon to the growing boy or girl. The ringworm which affects the scalp usually does not return after puberty. That which affects the non-hairy skin appears as a less regular ring with a clear center. The ringworm of this type may be acquired by fondling mangy animals. The boy in the gymnasium may acquire another type of ringworm which makes its appearance between the toes, on the soles, and in the groins. The use of another's towel, bath slippers, or bathing suit should be avoided in order to escape these parasitic infections.

Beware of Wart Medicines

Adolescence is the time for warts. There are two types of warts with many subvarieties. One kind of wart is the juvenile or flat wart, which is, in all probability, a contagious variety. The other kind, the common garden variety of wart, is also contagious. There is no basis for believing that either type of wart is transmitted by handling toads or frogs. The juvenile wart may be treated by internal medicine. The common wart is eradicated by some form of external treatment. Wart medicines purchased at random may do more harm than good; the destructive ingredient of the application may act on the normal skin around the wart as well as on the wart itself. There exists on the skin of some young people a pearly looking growth which is evidently contagious, and which must be treated in a different manner from either variety of wart mentioned. The face may be affected by this disease; it is known as molluscum contagiosum.

The adolescent boy shows the coming of manhood by appearance of hair on the cheeks and

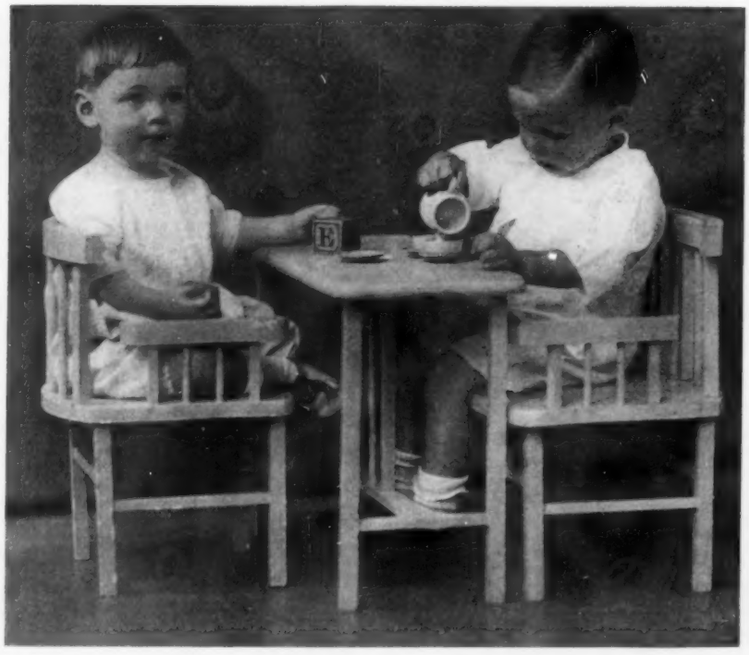
chin. If shaving is begun early, the beard will not grow thicker, and if the appearance of the boy is improved, shaving is recommended. It is unnecessary to shave at once if the beard is light in color, and so fine as to be almost imperceptible. Shaving oneself is the most convenient, and from the point of view of personal hygiene, the safest procedure. If a brush is used, it should be kept clean. Razor blades should be changed often enough to avoid irritation to the face. These precautions will help to prevent infections which have been grouped under the general term, barber's itch. This term is used incorrectly. We often see persons who have infections of the hair region of the face, who have never attended the barber for shaving. One instance of misnamed barber's itch is ringworm; another is an infection with pus forming germs. Efforts to diminish infection through the barber shops have been initiated in many communities by regulation and supervision of the trade. This is a duty of the health department. The larger cities have introduced many sanitary requirements—sterilization of instruments, sterilized brushes for each patron, individual shaving mug and individual piece of soap.

Downy Growth Is Normal and Healthy

The healthy skin of the growing girl may show a fine downy growth of baby hairs which are almost colorless. The upper lip may have a downy growth which is slightly darker in color. As long as the growth remains light and colorless it should not be considered a blemish. This peachlike covering of beautiful skin is normal and healthy, but the girl who has it too often exaggerates its importance. She may start using depilatory creams, which must be resorted to at shorter and shorter intervals because no cream, no matter how strongly advertised, can permanently cause the disappearance of the hair follicles from which the hair takes root. Self-treatment or interferences by inexpert operators should be avoided.

Sometimes the hair of the head falls out in round, even patches. It is not known just why this happens; the infectious agent has not been brought to light. The possibility that this type of loss of hair is an indication of disorder in some other part of the body must not be overlooked; teeth, eyes, ears and tonsils should be examined.

The skin cannot be more healthy than the body within the skin. The growing boy or girl is undergoing tremendous changes and the skin in its turn is taking on new activities, new functions, and a different relationship to the body. To preserve the health of the skin, attention should be paid to the upkeep of the health of the body. Well-cooked food, more spinach and less whipped cream, more water and less fancy drinks, more soap and water on the skin, more fresh air in the sleeping room, and more outdoor exercise will keep the body and its skin covering in a healthy condition.



These little boys eat at their own table. They have learned independence and how to respect the wishes of others.

Giving the Child a Fair Start

MA BELLE TRUE

THE CHILD health work maintained by the Kansas Tuberculosis Association is sometimes dignified by the name "The Traveling Clinic," but it lays no claim to the thorough examination and accurate diagnosis suggested by that title.

It is merely an effort on the part of a physician, known as the child health adviser, to meet the parents, teachers and others who come in contact with child health problems in small towns and rural communities to discuss with them questions of health that have arisen, either in the family or the school group, and to help solve the different problems.

A general understanding of the essential factors in the health of the child, the feeding and habits that go to make a sound body, will contribute to the conquest of tuberculosis. If it is conceded that tuberculosis is an infection often acquired in early childhood, an intelligent effort for better nutrition is an effective weapon.

Meeting the mothers and children every day, it is easy to become so engrossed in the factors of human interest that the personal welfare of a single baby is the one problem considered rather than the broad, general outlines of preventive work.

Grandmothers come with the young mothers to see what new notions may be offered for the care of the little ones. There was desperation behind one visit; an old foreign lady, whose four-month old grandson was doing badly was the reason.

"Tell us what to do about him," she implored, "two, three months he do be letting down a'ready." That sketched the history of failing nutrition, from the time the baby had been put on a highly sweetened condensed milk. This baby was doing well on breast milk; the mother was persuaded to change to the patent food, having been assured that the baby would do better. A temporary gain in weight occurred, enough to satisfy the family that the new milk was all it was advertised to be, and it was hard to convince the mother and grandmother that the signs of poor nutrition proved that the food was never adapted to the child's proper development.

Another mother with a small baby had come to the clinic with the grandmother, but managed to get a word alone with the doctor. The doctor found that the child was being fed cow's milk, undiluted. He suggested to the mother that cow's milk was made for calves, and was far too heavy for a human baby of such tender age.

"I thought so," sighed the girl mother, "but his mother lives with us. She says not one of her babies was fed watered milk, and her grandchildren shall not have it."

It is doubtful if that grandmother ever could be convinced that the suggested lightening of diet would work to the baby's advantage.

The fault in baby feeding is not always stubborness or crass ignorance; sometimes intelligence is misapplied.

A father came to the clinic. He did not bring the baby; it was too far. He was anxious to know why she should be doing so badly. She came home in good condition from the hospital where she was born, but the milk mixture she was taking seemed so thin that they had sought to improve it by adding top cream to the choicest Jersey milk. The baby developed indigestion. They had not told the doctor at the hospital of any change they had made in the feeding, indeed, it was hard to convince them that such slight alteration in the proportions of milk and cream could be of any importance. They felt that the doctor did not understand the case from their telephoned reports of the baby's condition; they were about persuaded to give up the doctor's advice and try a patent food that they had read about. These parents were college graduates and with certain credits in chemistry, but they failed to apply their educated minds to the problem that confronted them.

One young father said regretfully of his year old son, "For months back he hasn't seemed right strong. It 'pears like he gets sick every time we give him pickles."

While children should not be heedlessly fed, some children are so carefully guarded that milk as the only food is continued too long. The mother fears to add cereals, fruit and vegetable juices to the feeding if the baby has not been doing well on milk, yet these additions are essential for the proper nutrition of any child over six or seven months old.

A girl thirteen months old seemed almost a skeleton; she vomited any and every milk mixture prepared for her, yet milk was the only food given her, because of her apparently feeble digestion. She came up to normal health and weight in a surprisingly short time when thick cereal mixtures, thoroughly cooked, were added to her feeding, in place of some of the milk.

Once there has been a digestive upset, the food that proved suitable and brought relief at the time is likely to be continued indefinitely, and this may be to the baby's damage.

A mother whose nursing baby had colic at two or three months ruled out from her own diet all fresh fruits and vegetables, being told they caused the colic. The baby, when eleven months old, was still nursing the mother, whose diet was severely restricted; there were no additional feedings. The baby had a bad case of scurvy, but the mother protested against the suggestion that orange juice was the preventive for such a condition; she was sure that it would give him colic.

Nursing the breast or bottle through the second year becomes more of a bad habit than a means of nutrition, and makes erratic the child's appetite for suitable solid foods. This unhappy state may persist all through childhood and even into later years.

The mother, when questioned about vegetables given to children, is likely to say with an air of conscious virtue, "Oh, I never give them anything but potatoes." This vegetable should not be the main reliance in feeding small children who have feeble powers of starch digestion. When the potato served is covered with flour and grease gravy, or fried in fat, it would tax a grown-up digestion. Mothers are afraid to use greens in place of potatoes. All leafy vegetables have elements which are essential to the needs of the small child and he should have these vegetables each day.

One mother told the story of a lucky stroke her family doctor made. Their baby was about fourteen months old, and had not a single tooth. The mother went to the doctor, who told her that the baby's diet was too restricted; he advised the use of vegetables. "So," said the mother, "I went home and cooked a kettle of vegetable soup, and the next day two teeth came through."

That mother believes in the early use of vegetables for babies, and also believes in her doctor.

A queer diet notion came to light in a neighborhood where there was general complaint of restless sleep and upset digestion among the runabout babies. The most probable cause seemed to be the custom of feeding raw potatoes to the little folks.

"Well," said one would-be up-to-date mother, "we read that raw vegetables are good for children, and potatoes are the only kind of vegetable we have now."

Warning is often necessary in rural communities and small towns where there is no inspection or control of the milk supply; the mothers do not understand the dangers of impure milk. Sometimes after giving them warning, their fears are aroused and they refuse to use any cow's milk for the baby. It is not easy to help them past their predjudices against boiled or heated milk, or to convince them that three minutes of quick boiling rids milk of its dangers, and that such milk, with the associated feeding of orange or tomato juice, is safe.

The safe manner of milk production needs to be taught on all occasions. At one of the clinic gatherings a demonstration showing the clean methods of handling milk amused a group of foreign mothers. When they realized that the farmer was preparing to use a sponge before milking they laughed until their sides shook, and nudged each other, exclaiming, "Whoefer heard of a farmer vashing his cow?"

Sometimes a community is awakened to the dangers of milk from tuberculous cows by one method, sometimes by another. A shipment of hogs was sent to market from one small town; on inspection after slaughter, they were condemned as being infected with tuberculosis. One mother said, "If the cow's milk did that to our hogs, it is likely to do terrible things to our children."

Even tuberculosis infected milk can be made safe to drink by quick boiling. Children well past babyhood should not be given unheated milk, unless the cows that furnish the supply are proved to be free from tuberculosis by tests made by a veterinary surgeon.

The tubercular bone diseases to which children are susceptible have been reduced 90 per cent. in the city of Philadelphia since the heating (so-called pasteurization) of the milk supply has been enforced by a city ordinance.

One experience at the clinic suggested a tuberculosis tragedy. At two years of age a boy showed some lameness; it was so slight that it almost escaped notice. However, when the fears of the parents were roused, they went to a doctor for advice. The doctor consulted ruled out the factor of tuberculosis after rigid tests. The child's bones were so soft that his hip bones were crumbling under the weight of his body. He was fastened on a ladder brace, and there he lay for over a year, while the bones grew firmer. It was learned that all the milk used in the family was separated milk; the cream was taken out to be sold. This was a probable cause for the lad's condition. The father of the boy knew that his young calves or pigs would not do well on skimmed or separated milk, but he never thought that skimmed milk might hurt his child.

In any rural community where the farm bureau is at work there are facts of nutrition brought to the homes through the studies of the farm women's clubs. Such studies are reflected in better planned family dietaries, better gardens and dairly supplies, and improved feeding conditions for the whole family. There are many places not yet awakened to the importance of giving the child a fair start in life by right feeding; the campaign of education must go on.

Dandruff and What to Do for It

DANDRUFF means a scurf on the scalp. To the man on the street, it means scurf on the coat collar. It is difficult to explain all the phases of scalp scaling, but it is possible to divide the subject into two main classes, oversecretion of the glands supplying fat to the hairs and undersecretion of these glands. Ordinarily, the occurrence of dandruff is an indication that general health is reaching par, rather than being maintained over par. The immediate cause of the scaling of the scalp has not been determined. The theory of infection with some type of organism has been advanced; in all probability, an organism or an undescribed germ is the cause. But if the scalp is properly cared for, the possibility of germs gaining a foothold is poor.

Dandruff is uncommon among children; it is a disease of adult years. If not the direct cause of baldness, dandruff precedes so many cases that there seems to be some causal relationship.

A wrong kind of comb, a poorly selected and dirty hairbrush, and the application of irritants in the form of so-called hair tonics help to cause dandruff.

The garden variety of dandruff may not always remain harmless. The condition may progress unfavorably, the scales may change and stay on the scalp forming a scurf. Some of the scales may be brushed on other parts of the body, and the skin of the chest and back may show a diseased condition. At times the entire skin surface may share in the scaling process; this will cause much discomfort and inconvenience.

Men, more than women, are affected by the loss of hair concomitant with dandruff. It is possible that some other factor than dandruff is to blame for this. Before the day of bobbed hair for women, many ideas were advanced to cover this difference. Now that the barber shop is used by both sexes, we cannot place the blame on any difference in coiffure. Again we meet one of that tremendous group of diseases in which some unknown factor has a share. The ductless glands play a part in some types of baldness. That type of baldness which begins at the forehead and runs back, leaving a fringe of hair above the ears and around the neck, is another of the signs such as the beard and change of voice pitch which characterizes the male of the species.

Living habits should be at the best to avoid dandruff; excesses in sweet or greasy food should be avoided; cleanliness should be paramount—a fresh comb and brush at the barber's, a clean one at home. Don't scratch your scalp. Don't use hair tonics, the formulas of which you know nothing about and which may be harmful for your scalp. If you need advice on the condition of your scalp or hair, consult some one who understands the relationship between your scalp and your general health.

Hair Turning Gray

To the Editor:—I am 30 years old. My hair is turning gray. Would it help the condition to have my hair shingled close to the head? I have been advised to do this so that my hair will come in dark. My hair is naturally curly, and in case I should cut it, will there be any danger of its coming in straight? How long will it take for the hair to grow long so that I could go without a transformation?

M. H., Illinois.

Answer.—Clipping the hair will not prevent graying or falling. Gray hair is the result of a failure on the part of the hair follicle to produce the normal pigment. Hair may start to turn gray when one is 25 years old, or it may wait until one is 60. Usually the age of onset is the same in various members of the same family. There would be no change in the wave of the hair after clipping. There is a marked variation in the rate of growth of hair in different persons; as a rule it is less after puberty. An average rate for your age would probably be an inch in three months. Nothing is to be gained by clipping your hair.

When the Tonsils Should Be Removed

GEORGE E. SHAMBAUGH

THE EARLIEST medical writings, those of the ancient Egyptians, discuss the menace from diseased tonsils. Indeed, pictures are available of crude instruments for the removal of tonsils. Through the centuries, chronic enlargement of the tonsils has been recognized as harmful and they have been removed in many cases.

During the last quarter of a century, the important part which diseased tonsils play in causing infection elsewhere in the body has been uncovered. It is not alone the enlarged tonsils that are a menace and that require removal, but also the small, shrunken, inconspicuous, more or less embedded tonsils. To determine whether the tonsils may be a serious menace whose removal should be urged requires careful and expert attention.

The conscientious physician is anxious to do everything possible for his patient, but he is equally anxious to avoid doing unnecessary work, particularly when this involves operating. We should expect every physician to strive with scrupulous care to protect from abuse and exploitation the field of medicine for which he is sponsor. His motive in doing so is not one of self-interest but is one of responsibility for public welfare. We see, on the part of trained physicians, a constant effort to disseminate a better appreciation of the menace that arises from diseased tonsils, and an effort to discourage the tendency to overemphasize the menace from tonsil disease that leads to their indiscriminate, unnecessary removal.

The problem of deciding whether the tonsils should be removed should be passed on by some one familiar with tonsillar disease. It is a much more difficult matter to train one to make the proper examination and to have a proper appreciation of what cases should be subjected to operation than it is to train men to do the operation.

Two forms of tonsil disease exist—the acute and the chronic forms of tonsillitis. Often both forms occur in one person, that is, a patient may be subject to attacks of acute tonsillitis and between these attacks one may recognize the evidence of chronic infection. Not infrequently, one observes recurring attacks of acute inflammation when between such attacks the tonsils show no evidence of chronic infection but present a normal appearance. It is equally common to detect, on examination, that type of chronic tonsillitis that is easily recognized as constituting a serious menace, and when there is no evidence that the patient has suffered from an acute form of tonsil disease.

Recognizing Tonsil Infection

The clinical symptoms of acute tonsillitis are so characteristic that an adult readily recognizes the condition himself. There is sore throat; the glands at the angle of the jaw are sensitive to the touch and are sometimes distinctly enlarged; there are fever and headache, and usually rheumatic-like pains and backache. It is, however, only the more severe, typical cases of acute tonsillitis that are recognized as such by the patient himself. There are many cases of acute sore throat in which the tonsils are not involved but which the patient may believe is tonsil trouble, and many cases of mild acute tonsillitis when the patient himself does not suspect the real nature of the trouble.

The recognition of chronic tonsillitis is a more complicated problem. The simple enlargement of the tonsils does not make these structures a menace. Some enlargement of the tonsils frequently exists, especially in children, when there are no local or general conditions which suggest that the tonsils are a menace or that they should be removed. Again, the enlargement of the tonsils alone may be the chief indication for their removal. This is when there is no history of attacks of acute tonsillitis, but when the enlargement, associated as it usually is with enlarged adenoids, interferes with proper nasal respiration. This is the type of tonsil which from the earliest Egyptian writing to the present century has constituted the chief indication for tonsil removal.

The recognition of chronic infection in the small, inconspicuous, buried tonsils is one of the achievements of more recent years. To know just how great is the menace that lurks in this type of tonsil requires experience and judgment. Among adults, it is exceptional to find tonsils in which a careful examination will not uncover some evidence of degenerative changes, even when these structures are causing no local symptoms and when there is no reason for suspecting them as the cause of any systemic trouble such as rheumatism or kidney or heart disease.

Chronically infected tonsils usually are enlarged; with this enlargement there are associ-

ated other evidences of inflammation such as an area of congestion spreading over the surface of the tonsil and the adjoining region of the soft palate. Compression, properly applied over the base of the gland, often brings out certain evidences of chronic tonsillitis that are not detected by ordinary inspection.

Diseased tonsils take a part in causing systemic infections such as kidney trouble, heart disease and rheumatism. Such systemic infections may be the result of acute or chronic tonsillitis. When infection has once resulted from the tonsils, the likelihood of a recurrence of the same trouble is much lessened by removal of the tonsils.

The problem of deciding when to remove the tonsils because of systemic infection is a difficult one. First, systemic infections are often caused by other foci of infection, infections about the teeth; second, such infections may occur from tonsils when there is no history of acute tonsillitis and when an examination of the tonsils fails to disclose evidence of chronic infection.

The story of the origin of the method for complete removal of the tonsils is an interesting one. It was not until the theory that systemic infection often owed its origin to foci of infection which were located in the tonsils was established that an urge developed to devise a method for the complete removal of these structures. Removal is now practically a universal practice.

In more recent years efforts have been made to cure chronic tonsil disease by the use of x-ray and radium and in some quarters this has been hailed with great enthusiasm. Perhaps the last word has not yet been said in regard to this method of treatment, but up to this time the results have not been encouraging.

People are often troubled about the functions of the tonsils and fear that the removal of the tonsils may deprive them of structures which are necessary to their welfare. The most careful observation has not been able to suggest that any harm arises from this source. The removal of the tonsils does not deprive the body of an important structure.

Ridding the Household of Insect Pests

LOUIS GERSHENFELD

REPELLENTS possess temporary value when used in infested places. They act by driving insects away rather than by destroying them.

Oils of pennyroyal, eucalyptus, and wintergreen, smeared on clothing, wearing apparel and on or around beds are efficient remedies for driving away fleas.

Oil of peppermint, oil of tar, oil of citronella, oil of pennyroyal, oil of lavender, spirit of camphor, oil of cassia applied on one's person, on screens, around beds, or in environments where mosquitoes are abundant will drive these pests away. Some of the oils mentioned have been recommended as repellents against flies, when they are annoying in a particular environment.

Various vapors are employed as repellents. The fumes of cresyl (obtained by burning one of the coal tar disinfectants), and of dried orange peel are of value as repellents, rather than as destructive agents, against mosquitoes. By burning these, fumes are produced that are noninjurious to human beings, do not affect household goods, and their work of driving mosquitoes away is performed without having the rooms vacated. They can be burned at night in one's sleeping quarters.

Vapors generated by burning powdered pyrethrum flowers or insect powder is effective for the eradication of roaches, mosquitoes, and occasionally fleas. The technique to be used is identical with that employed in the use of sulphur fumes as a fumigant. The fumes seem to stupefy the insects; they can then be swept up and burned.

Powdered stramonium or jimson weed, 8 ounces to each 1,000 cubic feet of space, to which is added one fourth of its weight of saltpeter, so as to make it burn more readily, will produce fumes that are nonpoisonous to human beings, will not injure furnishings or metals, and are said to be effective against mosquitoes.

Fumes produced by burning 4 ounces of camphorated phenol (equal parts of camphor and crystal phenol or carbolic acid), to each 1,000 cubic feet of space, in closed compartments, have been found effective in destroying flies and mosquitoes.

Fleas Spread by House Pets

Fleas are most frequently spread about the home by pet animals. Fleas generally make their breeding grounds in old carpets, straw mattings, old clothing, hats, dust in cracks in floor boards or dirt and filth in corners. The actual breeding places may be in cellars, sheds, barns or under the building where the animals stray or visit frequently. When no such places can be found in an infested home and fleas still

persist, there is a possibility that the hair of the animals is the actual breeding ground of the fleas.

To do away completely with such infestation, the destruction of fleas on domesticated animals is often necessary. A solution made by adding 2 teaspoonfuls of creolin or a similar miscible coal tar product to a pint of warm water may be employed as a wash to rid an animal of fleas. This solution should be worked into the hair with a brush. Care should be taken that the entire body is reached, and that the eyes are protected.

Another good remedy is a kerosene emulsion. This is made by dissolving a teaspoonful of washing soap shavings or soap chips in a quarter of a glass of hot water. When this is brought to a boil, it is removed from the fire, and about two and one-half teaspoonfuls of kerosene are added. This is agitated rapidly, preferably with an egg beater. The kerosene will dissolve in the soap solution. If it should not dissolve, further heating, after placing the mixture in a pan of boiling water, and additional agitation will be necessary. Enough water is then added to make a quart of the kerosene emulsion. Straight kerosene should never be used on animals; it will burn them.

After ten minutes of washing in any one of the previously named solutions, the animal is removed and dried. Tender skinned animals, like cats, should be washed with soap and water immediately after the chemical bath. The animal should be thoroughly dried.

Flaked camphor rubbed in the fur of domestic animals will stupefy and destroy fleas that may be present. The animal may be made slightly ill for a day or two as a result of this treatment.

There are many references in books and magazines to the insecticidal action of chemicals, drugs or powdered parts of plants, other than mentioned in this series of articles. Powdered allspice, black cohosh, black walnut, boneset, cayenne pepper, eucalyptus, indigo weed, jimson weed, lavender flowers, May weed, oleander, pennyroyal, quassia chips, red cedar leaves, Roman chamomile, sassafras and tobacco are but a few of the various powder insecticides that are recommended as remedies to control the household insect pests. It may be of interest to know that insect powder, when used without qualification and therefore when used for labeling, is, under legal restriction, directed to be nothing more than the flower heads of three particular species of chrysanthemum, one being the Dalmatian insect powder and the other two, so-called Persian insect powders.

Insect Powders Only Partially Effective

As general insecticidal agents, the list of powders mentioned are practically worthless, as are many others which are exploited before the public. Some of them, however, may be found to be somewhat effective in special instances for particular types of insects. Many of them depend in their activity on the presence or liberation of an active volatile ingredient. It is usually difficult for the layman to ascertain whether this active volatile ingredient is present. Generally, the activity of these substances is practically nil, unless fresh. They are, therefore, not to be recommended to the housewife, because of a lack of definite information regarding their value, because they are only partially effective, because of high cost and because of impracticability of application.

It will be found advantageous to use the various methods, chemicals and directions given in detail in this series of articles.

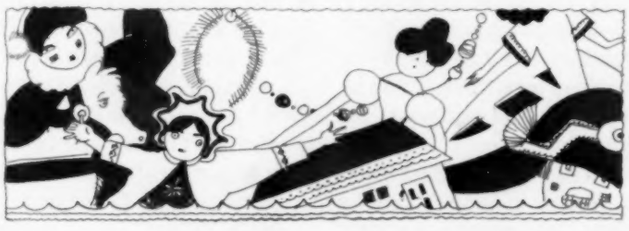
It is unfortunate that household insect pests are found in such abundance.

We must, however, look at conditions as they are and try to combat them intelligently or we will have to continue enduring the annoyances and miseries that result. Ignorance of health and sanitary facts is expensive and may result in grave consequences.

The demand for relief from household insect pests is widespread and urgent. An increase of public intolerance to these pests will assist greatly in organizing worthy, practical, sane, and united attempts in their eradication. Cooperation is needed in communities to get rid of insect pests.

If insect pests are allowed to multiply without interference, they will seriously endanger possessions and lives. Life would become unbearable were it not for the fact that scientists are doing their share in the warfare against mankind's insect enemies.

The public should become familiar with valuable scientific information and health data brought to their attention. Understanding goes before improvement. With interest on the part of the public, the results will be greater health, happiness and comfort for all.



HYGEIA

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Plain Facts about Health and Disease

HEALTH NEWS OF THE MONTH

Chiropractic and the Shenandoah Disaster

The astute publicists who urge upon a credulous public the alleged merits of that peculiar system of healing known as chiropractic have not hesitated, ghoul-like, to take advantage of the unfortunate Shenandoah disaster to exploit the claims of their cult. As has frequently occurred in previous instances, a careful investigation reveals a tissue of falsification on which the preposterous stories are built. When the great balloon floated without control some 7,000 feet in the air and then fell, only a few survived, among them Lieutenant R. G. Mayer. Of him the chiropractic publicity said:

> Lieutenant Mayer, whose information was a necessity, being the only survivor who was conscious, developed a violent nervous headache during the afternoon and inspection was stopped while he was being cared for at the field hospital, but obtained no relief. Dr. T. J. Beckett, a chiropractic of Wellsburg, W. Va., offered his services and was accepted, and after examination found the vertebrae of the neck injured, causing the headache by producing nerve pressure. After administering adjustments, the headache was stopped and inside an hour Lieutenant Mayer was again able to accompany the board and give his valuable information through the different stages of the investigation. . . . He further said he would listen to Dr. Beckett's advice and have a thorough examination by a chiropractor at the earliest convenience to avoid further trouble developing from the accident.—adv.

Experts in mendacity customarily select as topics matters on which verification is not so simple as in the case of the Shenandoah disaster, but it is an old axiom that the perverter of truth tends to stretch his tales farther and farther until he invariably is detected. Fortunately, the United States Navy has a medical service as good as that of any similar organization in the world and it maintains adequate records of its work. Following is a simple report on the casualties resulting from the Shenandoah disaster and of an interview with Lieutenant Mayer concerning the specific incident that has been mentioned:

> NAVAL AIR STATION, LAKEHURST, N. Y.
>
> Regarding your letter concerning Lieutenant Mayer, I have just had a talk with him as he has just returned from Washington and he informs me that he has *never* consulted a chiropractor in his life, and that he never heard of J. T. Beckett. He further states that he has never suffered from a "violent nervous headache," and that if possible he would like to have the matter thoroughly investigated and have the chiropractors prosecuted for using his name in a false advertisement and without any authority. He will give any assistance possible in exposing the propaganda, as he feels much wrought up over it.
>
> The day after the wreck of the Shenandoah all the survivors with exception of three or four who remained at scene of wreck to take care of things and C.P.O. M———, who suffered a broken pelvis and who is still in hospital in Ohio, returned to station and every survivor was ordered to sick-bay and given thorough examination and appropriate treatment. Lieutenant Mayer is one of the survivors who remained at wreck to assist Lieutenant Commander R——— and I did not see him until about ten days after accident, at which time he came to the dispensary with Lieutenant B———, who had also remained at the wreck. Lieutenant B——— had a contusion of leg and a sprained ankle which was treated. At the time, Lieutenant Mayer said he had escaped without the slightest scratch or bruise and that he felt fine. As a matter of fact he is the only one who escaped entirely without slight injury, or among the ones who remained at the wreck and of those who went there from the station who did not develop diarrhea, probably from polluted drinking water.

Do Athletes Die Young?

In recent issues of HYGEIA we have commented on athletic limitations and have referred particularly to the musings of George Jean Nathan relative to the advantages and disadvantages of the athletic life. Now comes Daniel Chase, supervisor of physical education of the State Education Department of New York, with a statistical defense of the vigorous existence. Of 152 oarsmen who rowed in Harvard crews from 1852 to 1892, only 30 had died by 1904. Of these, 6 had been killed in war whereas only 2 had died of heart disease and only 1 of tuberculosis. Two of the 122 who remained alive considered themselves in poor health and 2 believed that their rowing experience had in some manner injured their physical condition. Fifty per cent. of those remaining alive had not been sick in bed as long as a week in the intervening years. Mr. Chase also presented the results of an investigation by Dr. Anderson of Yale of 807 athletes who won their "Y" between 1855 and 1895. The

percentage of deaths among these men for the period covered was 7.2 while for other students for the same period it was 12.9.

No doubt overstrenuous athletics uncontrolled are harmful and overdoing of competitive athletics may result in serious damage. However, if contests are well controlled, limited to men who are physically fit, and guided by experienced students of both athletics and physical health, relatively little danger may be anticipated from athletic competition. On the contrary, both morale and physical condition are likely to benefit by the training. At the same time, readers should remember that the difficulty lies not so much in the athletic life as in the sudden and complete cessation of all physical effort and the adoption of sedentary and gormandizing habits. M. F.

THE CRANKY CHILD

THE CURRENT fad is "hothouse" child culture. Ladies of domestic leisure, with or without children, spend their afternoons in breathless attendance at lectures on child training by psychologists, school teachers, psychiatrists and physicians with systems for teaching the young idea how to shoot. And if we may be pardoned the pun, the young idea in some of our large cities is learning to shoot accurately and frequently.

Since its establishment, HYGEIA has published numerous articles on the care of the child by members of all of the professional groups that have been mentioned. It has been our endeavor to conserve a rational balance in this field and to avoid the promotion of any unusual conception of child freedom or of any apparently sadistic plans involving unusual rigor or cruelty in the maintenance of juvenile discipline.

In a recent address, Dr. Frankwood E. Williams, medical director of the National Committee for Mental Hygiene, urged greater freedom for the child and thereby aroused the resentment of many editors. Among statements which are credited to him in newspaper reports of his address are the following:

> If a boy smashes the car, breaks his collarbone and comes home with alcohol on his breath, these are signs of normal depravity. In their own way these are healthy signs that the boy is developing along the proper lines.
>
> If the boy of today does not take to wild neckwear, let his socks slump over his shoetops, pick up the current slang, and occasionally put a dent in the family flivver, he is not a normal boy.
>
> Model children who win all the Boy Scout honors and the gold stars in Sunday school are the ones who should be closely observed. They are destined for unhappiness because they have never thrown off parental domination.

Newspaper editors have recognized that "a flicker of a grain of purposeful sense" is concealed in these statements, but one editor comments that "the maudlin specifications in which the doctor details his recommendations come closer to septic poisoning than any medical mélange that has greeted our ears in many a hectic day."

The address of Dr. Frankwood E. Williams is not yet available in its complete form. His writings in the past would lead one to believe that he has commented sanely on each of the quotations which a sensation-seeking press has emphasized as portions of his address. These quotations and the comments made on them, however, give opportunity to urge again the avoidance of extremes, of fads, of systems and of unusual experiments in child training. The old proverb "as the twig is bent the tree inclines" gives warrant for the advice that a certain amount of bending in a right direction is valuable in child culture. M. F.

THE FATS AND THE THINS

DISCUSSION of weight reduction is a perennial topic in the periodicals devoted to health and physical culture. At the same time, scientists are giving attention in more technical publications to intricate aspects of the matter, such as are hardly likely to come to the attention of those who do not realize that the deposit of fat in the human body is likely to be influenced by mechanisms over which one has but little voluntary control. At the annual session of the American Dietetic Association, held in Chicago recently, Professor A. J. Carlson of the University of Chicago, department of physiology, emphasized the part that the so-called glands of internal secretion may play in the control of body weight. The removal of the sex glands of man results in making him fatter; it has been known for years that the eunuchs of the orient are subject to obesity. However, it is Dr. Carlson's belief that the results are inconstant. This opinion he reaches by the fact that the metabolic rate or the quantitative speed at which chemical processes go on within the body is but little decreased following the removal of these glands. "The speed with which the body uses up food and oxygen," says Professor Carlson, "is so slightly lowered by the removal of these glands that they can hardly be held responsible for the increase in fat when this does occur."

Other glands which have been charged with playing some part in the control of obesity are

the thyroid in the throat, and the hypophysis, a gland in the front of the brain. It is generally known that low thyroid activity results in a lowered basal metabolism, and it has been found that the taking of thyroid gland extract will speed up the metabolism and result in reduction of weight. However, the overuse of such extracts has serious by-effects which make it dangerous if employed in an uncontrolled manner. If all or a part of the thyroid gland is removed from a laboratory animal, it does not always become fatter. The explanation for this is not absolutely clear, although it is believed that the glands within the body form a sort of interlocking system, so that when one is removed its functions are taken up by others.

Professor Carlson expressed the belief that people get fat in middle age because there is less physical strain and activity as they become more and more accustomed to regular routine. It is also likely that as one grows older, the glands cease to function with the same efficiency that they had in youth. M. F.

THE RETURN OF INFLUENZA

THE DEVASTATING epidemic of "Spanish flu," as the public called influenza, reached our country in 1918. At that time specialists in preventive medicine indicated their belief that similar epidemics might be expected in the future, unless scientific medicine had devised some definite means of prevention before the time arrived for its periodic return. History shows that such epidemics return at rather definite intervals to attack mankind. In an address on this subject before the American Public Health Association in St. Louis recently, Professor E. O. Jordan, well known authority on bacteriology and preventive medicine, said that the first estimates of the loss of life caused by influenza in 1918 were too low. A total of twenty million deaths in the population of the whole world, he believed, might safely be attributed as the result of that epidemic, probably the worst catastrophe of this character that has afflicted mankind since the black death of the Middle Ages.

Although some seven years have passed, it seems that we have not yet developed any efficient method of controlling this disease, unless it be the simple measure of avoiding human contact as much as possible. It is quite certain that the disease is transmitted from one person to another. Under modern conditions of civilization it is, of course, difficult to avoid the grouping of human beings in restricted areas. Nevertheless, this seems to be the only hope for protecting the individual. Campaigns based on the universal use of the face mask seem to have failed because of their limited applicability.

Since the exact cause or causes of the condition are not definitely determined, methods of preventive vaccination, using such organisms as may be cultivated from the nose and throat, have not seemed to offer positive success. Although it was hoped that the inhalation of chlorin gas might be used as a prophylactic and also for the early cure of diseases of the respiratory tract, positive evidence is not yet available to show that this method has certain merit.

"Judging by the past," said Professor Jordan, "nothing is more certain than that we shall some day have another visitation of this destructive infection." "It is not to be doubted," he continued, "that if it were to descend upon us tomorrow we would, as public health workers and students of disease, be little if at all better equipped to deal with it than we were seven years ago."

In research laboratories throughout the world, students of bacteriology and medical investigators are bending their efforts assiduously to devise, if possible, methods of control. In the meantime, with the horrors of the last epidemic in mind, it is to be hoped that philanthropists who have money to devote to scientific research will aid these efforts with all the power that wealth can give. M. F.

ART—A FACTOR IN COMMUNITY NEEDS

ART DEPARTMENTS in schools have within themselves the talent, ability and power to serve the community. School art becomes practical when it gives back to the community from which it draws its support something worth while, something that contributes to the welfare and well-being of the public.

A national art poster contest for high school pupils has been announced by the National Safety Council. The subject is safety—safety in the home, in the street and in the facory. The poster contest is a part of the National Safety Council's program of education in accident prevention.

Every citizen and taxpayer is concerned with the health and safety problems of the community. Posters and pictures are more graphic than words, and when created on subjects of vital interest they perform several functions. First, they give effective training in art; second, they benefit the public in the subject matter selected; third, they awaken a new interest in the public mind toward the schools because the

service rendered helps the community. The art director becomes a leader in the community in proportion as he or she takes an aggressive stand on these problems.

The time has passed when school children will take any interest in using a glass of water and an orange, a vase and an apple for subjects in art courses. The Eastern and Western Art Associations realized this and passed resolutions to this effect at the annual meetings. They expressed their desire to encourage and promote a spirit of constant and more useful service to the community and the state through the art departments of the schools.

The resolutions read: "The subjects of good citizenship, health, safety, thrift and fire prevention are of vital importance to pupils, parents and the public. Art education becomes vitalized when properly related to current needs and activities similar to those enumerated."

The art associations heartily endorsed the work of the American Medical Association in successfully conducting, last year, a national contest on health in the high schools of the country.

Through the use of live material as subject matter for art expression, art will strengthen its foundations and will have a real value in serving community needs. J. P.

THE FOOT OF THE DIABETIC

PERSONS who suffer with diabetes are likely to be subject to various complications due to the fact that the tissues are not capable of proper repair following injury, and cannot overcome bacterial infection in the manner that normal tissues do. Such patients must, therefore, be constantly on the watch for slight injuries which the average normal man may disregard with impunity. Few physicians care to give special attention to the removal of corns, callouses or warts on the feet of normal people, and the chiropodists who give special attention to cosmetic care of the feet ordinarily handle such disturbances successfully. Members of this profession, however, have seldom had special training in the diagnosis of general bodily disease and at times are confronted with conditions of the feet which constitute a serious problem.

In a recent discussion of this topic before the annual convention of the National Association of Chiropodists, Dr. Elliott P. Joslin stated that he had seen hundreds of cases of gangrene of the foot in diabetics, although he had observed but a single instance of gangrene of the hand. Dr. Joslin said:

> The onset of gangrene in a diabetic is insidious. An old man buys a pair of new shoes and instead of wearing them at rest for an hour in the evening, wears them at work all day and develops a blister. A torn lining or a nail in an old shoe causes an abrasion of the thin, atrophied skin of the foot of an old woman. By poor light these decrepit folk hack away upon hardened corn or callus and cause a wound which becomes infected. All this could have been avoided if the feet had first been softened and cleaned. Little pain is felt, because in the old sensations are less acute. The man hesitates to give up his work on account of a sore toe. The wound, trifling at first, slowly eats its way deeper into the tissues and often the foot is aflame by the time the doctor is hurriedly consulted. Before one realizes that the situation is an emergency, blood poisoning has set in and the man is lucky if he can save his life by the sacrifice of his leg. I have seen too many catastrophes of this sort to attempt to treat them. I send these patients at once to the surgeon and then if it comes to an operation they will not blame me for dilatory tactics, because they have been in the hands of a specialist from the start. Take my word for it that when a leg is cut off, either by accident or design, some one is always blamed and I don't want to be that one.

Insulin, it has been pointed out, is a valuable remedy in the treatment of the patient with diabetes, but it will not cure gangrene. It permits such a patient to live to an age when gangrene may develop easily. If such patients are anxious to prolong their lives and to pass from this existence without the agony and the disturbance associated with amputation of a limb, they must carefully anticipate proper care of minor lesions affecting the feet.

The proper hygiene of the feet for the diabetic outlined by Dr. Howard F. Root before the same convention is a routine that might well be observed even by normal persons. The feet should be washed daily with soap and water and dried thoroughly, especially between the toes, using pressure rather than vigorous rubbing. When thoroughly dry, they may be rubbed well with hydrous wool fat (lanolin) as often as is necessary so that the skin may be kept soft and free from scales and dryness. The nails should be cleaned with an orange-wood stick and cut only in a good light and after a bath when the feet are freshly cleaned. They should be cut straight across to avoid injury to the toes. Shoes which are large, broad and flexible and which do not bind or rub must be selected, and it is good advice that, when new, they be worn only one-half hour to an hour daily until thoroughly broken in.

The diabetic must beware of nails and torn linings in old shoes. He should not attempt himself to cut corns or calluses. He should avoid the application of irritating antiseptics and should promptly consult adequate advice on the development of any redness, general swelling or other signs of inflammation. M. F.

The Wonderful Adventures of Fuzzy and Wuzzy

JANE PINE

TOMMY CAT-TAIL *was* proud. He swayed back and forth in the breeze and brushed his silky brown hair. Now and then he would bend over and look at his reflection in the pool.

"How do you like my beautiful brown hair?" asked Tommy Cat-Tail.

The twins, Fuzzy and Wuzzy, thought him vain, but his hair was as glossy and pretty as could be, so they said, "It is pretty."

"I brush my hair a great part of the day," said Tommy Cat-Tail. "That is what makes it so glossy and soft. You see, I am anxious to have an interesting adventure in my life. My parents are no longer with me, but I would not wish them to be here, for they have gone on to better things."

"What became of them," asked Fuzzy.

"Well, my father went up in a glorious flame. He was dipped in oil, a match was set to him, and he burned brightly all through a wonderful parade. My mother was picked by a lady who painted her hair in the most beautiful shades of orange and gold and blue. Now she's sitting with several leaves in the window of a milliner's shop."

"Did both your mother and your father have such beautiful hair?" asked Fuzzy.

"I should say they did," said Tommy Cat-Tail. "My mother told me when I was just a baby Cat-Tail that I should brush my hair every day, and that if I did, it would be beautiful."

"His hair is beautiful, even if he is not," whispered Fuzzy to Wuzzy.

The whisper was so loud that What-Not heard it and said: "Tommy Cat-Tail has done remarkably well with what he has. He has no teeth to care for, or I am sure that he would keep them as well brushed as he does his hair, and he has no face to wash, or I am sure that he would wash it several times a day whether he thought it needed it or not."

The twins didn't say a word, but they looked at each other in the queerest way. They thought that What-Not was talking about them for, if you remember, they did not wash their faces, brush their hair or scrub their teeth that very night.

"Keep up the good work, Tommy Cat-Tail," said What-Not. "I am sure your adventure is just around the corner. Now we must tell you good night, for we have other adventures to hear of and more to see."

"Good night," said the twins.

"Goodby," said Tommy Cat-Tail. "When you go past the milliner's shop look in the window

and tell my mother that I have brushed my hair until it shines."

As the twins went sailing up through the sky on their oak leaves, they could see Tommy Cat-Tail brushing his shiny brown hair.

"Now where do we go?" called Wuzzy.

"We are going to Brushland," said What-Not.

They passed through a soft white cloud and there, right before them were green grass and trees and flowers and bushes. The sun was shining and everything looked bright and clean. The twins looked everywhere, but could not see any one.

"Where is everybody?" asked Fuzzy.

"Just a moment, and I will call them," said What-Not. "They don't expect us, or they would have a parade for us, and a committee to meet us."

"But we're in our night clothes," said Fuzzy. "I really don't think we should pay a visit to anybody in our night clothes."

"These people will never notice the difference," said What-Not.

"Call them, What-Not, call them," said Wuzzy.

"Oh B.B., Oh B.B.," called What-Not.

"What are you saying?" asked Fuzzy. "What does B.B. mean?"

"B.B. is short for Busy-Brush," said What-Not.

"And who is Busy-Brush?" asked Fuzzy.

"Just wait, and you will see," said What-Not.

Fuzzy and Wuzzy did not have to wait long, for they could see some one long and lean leaping through the trees and bushes. He was coming at a furious pace, and he looked for all the world like a tooth brush. Yes, he was a tooth brush; a nice white tooth brush.

"My, my, What-Not, we did not expect you. And whom have you here?" and he pointed to the twins.

"These are earth children," said What-Not. "Their names are Fuzzy and Wuzzy."

Then What-Not turned to the twins and said: "This is Busy-Brush, the king of Brushland. I call him B.B. for short."

The twins bowed, and B.B. bowed too.

"You may call me B.B. if you wish," said Busy-Brush. "I have never visited the earth. It has always been an ambition of mine, but I am so busy in Brushland getting all my subjects prepared for their duties on earth, that I never get to take a trip."

"Oh," said the twins, "have you subjects and everything?"

"Yes," said Busy-Brush," I have subjects. If What-Not had told us that you were coming, we would have had a parade and a committee to meet you."

"That is just what I told the children," said What-Not, "but I know that Brushland is always so clean that you need not make extra preparations for visitors."

"That is very kind of you, What-Not," said Busy-Brush, "but we are wasting time. I am sure the twins will want to see some of my subjects and the Zoo and the queer specimens we have there."

"Have you a Zoo?" asked the twins.

"Well, we call it that," said Busy-Brush. "We named it Zoo, because we could not think of a

funnier name. I understand that it is not at all like the Zoos you have on earth."

B.B. led the way through the trees and bushes at a terrific pace. The twins did their best to keep up with him and when they reached the palace they were quite out of breath.

The inside of the palace was lovely; it was just as clean and white as the inside of a bowl. B.B. started a bell ringing, and first thing the twins knew the Brushland subjects started pouring into the room.

"I have called you here, so that Fuzzy and Wuzzy, the earth children, can meet you, and so that you can meet Fuzzy and Wuzzy," said Busy-Brush, the king.

There were all kinds of brushes—hair brushes, tooth brushes, nail brushes, scrubbing brushes—dozens of different kinds and all of them clean and white.

"We are glad to meet you," said Wuzzy.

"We are glad to meet you," said one of the brush subjects. "I am sure the other brushes are glad too, but many of them have never seen earth children and they are almost too busy looking at you to remember their manners."

"What can we do to entertain the twins?"

"Let me sing," said a little scrubbing brush.

"No, no," said Busy-Brush kindly. "You can clean quite well for a little fellow, but you are not such a good singer. The kind of singing you do is good enough to go with your work, it will make the task seem lighter, but your voice is not nearly as beautiful as your bristles."

"Let us see the Zoo, B.B.," said the twins.

"Very well," said Busy-Brush, "We will see the Zoo. In honor of the visit of the earth children, I will declare this day a holiday in Brushland."

"Hooray, Hooray," shouted the brushes.

So the twins went to the Zoo.

"We haven't anything in this Zoo but queer specimens," said Busy-Brush. "They are kept here as reminders to the Brushland subjects."

"Look here, Fuzzy and Wuzzy," said What-Not. "These were once citizens of Brushland, but they refused to keep clean, so the king put them in the Zoo."

There in a cage were the dirtiest lot of brushes you ever saw. They were worn out and they had not used soap and water on their faces for ever so long.

"It's a good thing that all the dirty people on earth are not put in a cage," whispered Fuzzy to Wuzzy.

Suddenly the twins heard some one moaning. They turned around and there, in another cage, was a man who looked so care-worn and unhappy that Fuzzy felt sorry for him.

"Just because he would not scrub his teeth he has to live on soup and mashed potatoes; he cannot chew," said B.B.

"Can't he eat fried chicken or nice red, juicy apples?" asked Wuzzy.

"No, indeed he can't," said What-Not. "And that's what makes him moan."

"He claims he's tired of soup," said B.B., "but he wouldn't listen when his mother told him to scrub his teeth."

"Careless folks should not complain when things occur to give them pain," said What-Not.

"I didn't know you could say poetry, What-Not," said Wuzzy.

"I can't say poetry," said What-Not, "those few lines about careless folks are verse."

"Worse?" asked Fuzzy.

"Verse!" said What-Not, and he glared at Fuzzy for asking so many questions.

"Oh, oh, now you've done it," said Wuzzy. "You've made him mad at you again, Fuzzy. Why can't you ever——"

The twins felt themselves falling and falling and they heard What-Not saying: "Hurry, hurry. We won't have time if you don't hurry."

"Time for what?" asked Fuzzy.

"Why time for breakfast."

The twins opened their eyes and there was mother standing in the bright sunshine, smiling, and calling: "Hurry, dears, there are faces and hands to wash, teeth to scrub and hair to brush, for breakfast is almost ready."

HEALTH NEWS AND VIEWS

NEGROES HAVE TUBERCULOSIS LESS OFTEN THAN WHITES

The North American negroes have tuberculosis less frequently than their white fellow citizens, but when they have it a larger proportion die. This is the conclusion of Dr. Eugene L. Opie, a pathologist of Staunton, Virginia, who has made a systematic comparison of tuberculosis in negro and white people. The reason is that acute forms of the disease are commoner in negroes and the chronic progressive kind affects them seldom, Dr. Opie stated.

The great age for tuberculosis in the negro is puberty; colored children generally escape. This is shown by the fact that the physical signs of tuberculosis in young blacks have the appearance of first infections. The negro race will not become permeated with the disease very quickly because the acute form of tuberculosis from which they generally suffer spreads infections much less than chronic types.

PROVES REPTILES HAVE SENSE OF HEARING

"Deaf as an adder" is an old English catchword; but a German biologist, Prof. Karl Berger, has proved that at least some reptiles can hear. He experimented on two species of lizards, eight kinds of tortoises and a crocodile. The tortoises never gave any sign that they heard his signals, but the lizards and the crocodiles responded. A sleeping lizard would open at least one eye when an electric bell was sounded. Changes in the rate of breathing also indicated the perception of sound, and this was used to measure the limits of pitch audible to reptilian ears.

Lizards could be trained to respond to sounds. Each day, while they were being fed, a certain note was sounded on a pipe. After two months the sleeping animals would awaken and go at once to the customary feeding place when they heard the familiar tone, showing that they had become used to the idea of music with their meals; music, to them, meant meals.

MOST MENTAL PATIENTS SHOW IMPROVEMENT

That popular impressions about insanity are false and that the general run of patients attacked by mental disease do not always go from bad to worse was shown by Dr. Earl D. Bond of Philadelphia in an investigation he has made of the histories of more than 1,000 admissions into the department for mental and nervous disease of the Pennsylvania Hospital. The patients had the more severe mental diseases such as senile dementia and arteriosclerosis, manic-depressive psychoses, dementia praecox, general paralysis, and other common types of insanity. Of the 1,024 patients whose histories Dr. Bond has followed for more than five years, 26.7 per cent. recovered and some of these reached higher levels of health than they had enjoyed before the illness; 14.5 per cent. improved, 32.3 per cent. died, and 25.5 per cent. failed to improve. He claims that patients who apparently recover from mental diseases do not as a rule soon break down again, but the majority have a good chance to enjoy better health.

CHRISTMAS SEALS SPELL SUNSHINE

The Christmas seal spells sunshine, literally as well as figuratively. Through funds raised by the penny stickers summer camps have been established where, in bright daisy meadows, in sunflecked woods or by cool shadowy streams, many sick children can spend happy days in a new out-of-door world. Children undernourished and predisposed to tuberculosis are sent to such summer camps, where they gain health through sunshine.

Christmas seals spell sunshine in another way. Nine years ago in Perrysburg, New York, an experiment in sunshine treatment, or heliotherapy as it is called, for certain forms of tuberculosis was first tried out in this country.

As a matter of fact, sun cure was practised as far back as the fifth century, B. C., by the Greeks, who realized the beneficial effect of the sun. Then in 1903, Dr. A. Rollier established at Leysin, Switzerland, a sun cure sanatorium for the treatment of bone and joint tuberculosis. The J. N. Adam Memorial Hospital, Perrysville, is an institution where tuberculous children are finding health through sunshine. Even in the coldest weather they can be out-of-doors with bodies exposed to the wintry air and sun. As they grow stronger, lessons are carried on out-of-doors in the sunshine so that both work and play become parts of their every day life.

GIRL BABIES TAKE NOTICE SOONER

Girl babies roll their eyes and look at bright lights sooner than boy babies do, Dr. M. J. Gutmann, a German psychologist, learned as a result of extended observations and tests on new-born infants. Some babies, he found, shied at light, some were indifferent and others hailed it joyfully almost at birth. The latter were more often girls.

Dr. Gutmann observed that reaction of the eyes to light occurred sooner in most cases than has hitherto been believed to be the rule. Some infants of only two or three days used their muscles in a properly coordinated fashion and gazed fixedly at bright objects such as lights. Babies as a rule must learn the use of the eye muscles by experience just as later they learn the use of the other muscles of the body.

HEALTH SERVICE FOR BABIES

The Mulberry Health Center, New York City, has for six years maintained a health clinic for the periodical examination of preschool children and a staff of nurses for follow up work in the homes. The center has analyzed its expenditures and now reports that this service costs, on the average, $2.22 per child.

LESS COAL AND MORE WATER

Referring to the average American home in winter as the "human hothouse" and pointing out that people of the United States now demand indoor cold weather temperatures ranging from 15 to 20 degrees higher than was considered comfortable a century ago in this country, Dr. Isaac D. Rawlings, state health director, Illinois Department of Public Health, declares that we have our modern heating systems to thank not only for the fading natural color and the corresponding increase in cosmetic complexion but for many of our catarrhal and other respiratory ills as well. Instead of 55 to 60 degrees temperature with a relative humidity of 35 or 40 per cent., the healthful, comfortable standard secured by our forebears from the open fire in 1820, we now require from 70 to 75 degrees with a 15 to 20 per cent. humidity at the expense of extravagant fuel consumption and a lowered resistance to infections.

"While the human body can adjust itself fairly well to temperature ranging over a scale of 150 degrees," said Dr. Rawlings, "adjustment to a change of 75 or 80 degrees, the difference between indoor and outdoor heat on a cold day, cannot be made instantly nor will the body tolerate kindly the dry hot air that fills most of our homes, hotels, offices, schoolrooms and hospitals during the winter months. The hygienic standard for indoor living quarters in cold weather should be 65 degrees temperature with 35 to 40 per cent. relative humidity, but this is difficult to secure with the average heating system, a 75 degree 15 per cent. humidity ration being much more common.

"Dry air is a poor conductor of comfort heat; most air is good. It requires about as much fuel to raise the temperature from 60 to 70 degrees as from 20 to 60. Dry air at 70 degrees may be chilly and it certainly causes the body to lose moisture rapidly from the lungs and skin, reducing the heat capacity, sapping the vigor, destroying complexion and lowering resistance to disease. A high temperature standard for living quarters is therefore severely extravagant on the one hand, and productive of a people hypersensitive to changes in weather.

"The popularity of the sunny south in winter, the remarkable growth of fresh air treatment in hospitals and sanitariums, the vagaries of fashion and the waves of respiratory infections, especially of the common cold variety, that grip the American people with the first show of frost, and remain until the blue bird comes in springtime are straws in the wind that point toward an indictment of our heating systems.

"We need more water and less coal in our household air supplies, and the sooner we get it the better off we shall be, economically and healthily."

WHY YOUNG MEN BECOME CRIMINALS

Warden Lewis E. Lawes, of Sing Sing Prison, gives ten principal reasons why young men become criminals:

First, heredity; second, improper home training; third, inadequate schooling; fourth, insufficient recreation; fifth, gambling; sixth, bad company; seventh, liquor and drugs; eight, false pride; ninth, disrespect for law; tenth, high cost of living.

City Judge Charles W. Boote, of Yonkers, names the reasons why delinquency is on the increase among girls:

First, improper home atmosphere; second, no religious training; third, automobile riding; fourth, love of luxury; fifth, liquor; sixth, movies of wrong type; seventh, lack of sex modesty; eighth, boys with too much money; ninth, immodest dancing; tenth, trashy novels.

SEES END OF DIPHTHERIA IN NEW YORK STATE

No diphtheria in New York State in 1930, says Dr. Lee K. Frankel, second vice-president of the Metropolitan Life Insurance Company in a recent lecture.

Dr. Frankel bases his prophecy on the achievements of the past in the control of the disease, and on the efficient methods of control used at the present time. He shows that the death rate from diphtheria has been steadily declining since the discovery of the Schick test and toxin-antitoxin in 1918. In New York State the death rate from diphtheria dropped from 20 per 100,000 in 1919 to 9.9 per 100,000 in 1924. He believes this to be due to the fact that since 1920 more than a million school children and many thousands of children of preschool age have been given the Schick test, and more than one third of these have been immunized with toxin-antitoxin.

Dr. Frankel says that extensive immunization by the use of toxin-antitoxin in all children above six months of age will result in the eradication of diphtheria from the State of New York by the year 1930.

AID FOR GREENLAND'S TUBERCULOUS CHILDREN

Tuberculosis is making serious ravages among the natives of Greenland, where the knowledge of the principles of hygiene is very primitive. A year ago a society for the relief of the children of Greenland was formed in Denmark (to which country Greenland belongs), which already has 5,000 members. With the aid of the Danish Ministry of the Interior and Health Service and the officials concerned with the government of the island, measures have been adopted for the installation of a twenty bed hospital for tuberculous children.

HEALTH CERTIFICATES BEFORE MARRIAGE IN LOUISIANA

The legislature of Louisiana has recently passed a law making it compulsory for any male applying for a marriage license to obtain from a licensed physician a certificate showing that he is free from venereal or other constitutional diseases.

Other states requiring a physical examination and a clean bill of health before marriage are North Carolina, Oklahoma, Pennsylvania, Indiana, Michigan, Oregon, Alabama and Utah.

UNIVERSITY OF MINNESOTA STUDIES CHILDREN

Nursery school classes for children between 2 and 4 years of age will be established by the Institute of Child Welfare at the University of Minnesota. The purpose of the institute is to study the small child and to make the results of its study available to the people of the state. Experimental educational programs will be developed through the nursery school that will solve some of the preschool child problems.

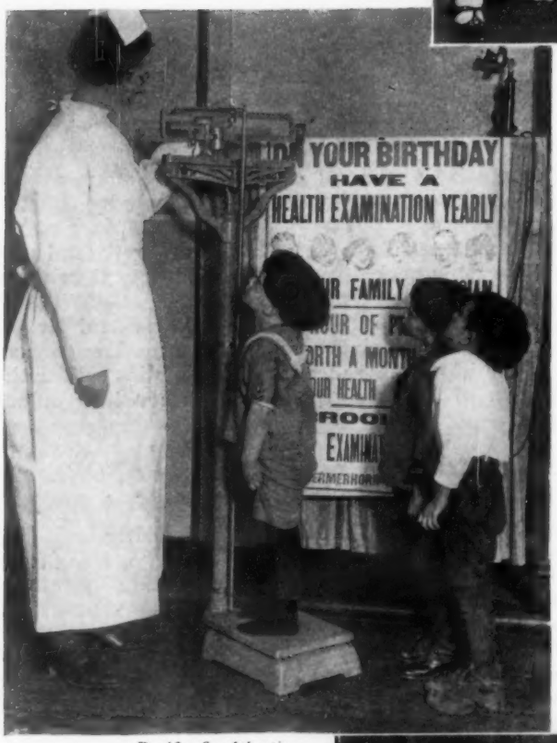
CHILD MARRIAGE IN INDIA

Statistics given by a writer in the *Times of India*, Bombay, show the extent of child marriage in India. The figures are from the 1921 census report for the Bombay Presidency. They show that in 1921 there were in Bombay, in round numbers, 49,000 married girls under the age of 5 years, of whom more than 2,000 were widows; 261,000 between the ages of 5 and 10 years, 13,000 of whom were widows; 643,000 between the ages of 10 and 15, of whom 34,000 were widows.

MILK LINE MAKES THEM HUSKY

The principal of the Francis Scott Key School, Chicago, is raising a gang of huskies. Some time ago the school established a milk depot. Now, over 90 per cent. of the children patronize it.

Underwood & Underwood



Pacific & Atlantic

TO KEEP FOLKS WELL

Most people wait until they are sick before they think of doctors or dispensaries. Brooklyn has established a new free health dispensary for the purpose of keeping people well. These little tots believe in the slogan on the poster and are having their first physical examination.

DAILY INSPECTION HELPS KEEP PUPILS WELL

Three years ago one of the teachers in a Chicago school originated a physical inspection program to iron out simple physical handicaps among the children. Every child has a health chart listing the daily condition of hair, face, neck, ears, clothes, shoes, hands, nails and teeth.

Underwood & Underwood

Underwood & Underwood

SCHOOL GIRLS TAKE DAILY HIKES

Fresh air and sunshine can do more for your complexion than cream, powder and rouge. These girls believe that; they are from the Martha Washington School for Girls. They are resting near the falls close by the old mill on one of the picturesque roads through Washington Park.

GATE PROVIDES SAFETY FOR SCHOOL CHILDREN

A gate, similar to the gates used at railroad crossings, is installed at Evanston, Ill., for the protection of school children crossing the boulevard. Juvenile traffic officers were formerly stationed at this crossing, but their signals were not heeded. Now, by lowering the gate, the junior traffic officers can stop motorists.

A CIRCLE OF HEALTH

London, in a drive to tone up its fog smothered children, is taking them in batches to the country and keeping them out in the open air. These are some of the children enjoying the fresh air treatment at Barham House, St. Leonards.

Two photos by Pacific & Atlantic

QUESTIONS AND ANSWERS

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a two-cent stamp. If the question is of general interest, the answer will be published; otherwise it will be sent by mail. Questions are submitted to recognized authorities in the several branches of medicine and answers framed by them. The names of correspondents will not be published. Diagnoses in individual cases will not be attempted nor treatment prescribed. Answers to questions relating to beauty will be found in the "Healthful Beauty" department of this magazine.

Discharges from Breasts

To the Editor:—I am 27 years old and have one child, 6 years old. My breasts have never entirely dried up during that time. Is this likely to become a dangerous condition? If so, are there any steps I can take to remedy this condition? I would appreciate any advance on the subject.

A. M., Massachusetts.

Answer.—This is a rare condition, somewhat intractable, cause unknown, but somewhat more frequent in nervous women; it is found sometimes in one breast, sometimes in both. At times the flow is profuse. Cases on record show that such a flow has lasted in some instances as long as eleven to thirty years. This may cause no ill effect whatever, or it may result in a generally rundown condition.

The treatment consists in wearing a tight binder, in permitting no irritation of the breasts or abnormal practices, and in taking medicine which a physician may prescribe. The binder should be properly adjusted to support the breasts evenly. The return of the menses, if absent, should be stimulated and attention given to the general health.

In a young woman the condition is not apt to become dangerous and need occasion little worry.

Static and Insanity

To the Editor:—Is there any truth to the report that the static developed in the operation of the radio is injurious to the mind of one continuously engaged in this connection?

I personally know a boy 17 years old who was so enthusiastic about radio that he worked on one almost continuously. He has been taken to an asylum for treatment for his nerves.

E. B. J., New York.

Answer.—So far as is known, static or wireless waves of any kind have nothing to do with the causing of insanity.

Throughout the history of insanity, ideas like the one in question, namely, that insanity can be caused by static, are found in great frequency and variety. They represent the effort of the weak to account for their failure by placing the blame on sources over which they obviously have no control. Such placing of the blame seems to relieve them of a sense of responsibility for giving in to their mental abnormalities and eccentricities. Magnetism, wireless thought control, Christian science malpractice, gases through the keyhole or under the door, poison in the food—the list is much longer—all have been given as causes for insanity by the insane and their families.

One is tempted to ask if the boy in question was not already the victim of ideas that tended to make him shun the society of others and shut himself off from the boys of the neighborhood. Such shutting one's self off from others indicates a lack of self-confidence already existing.

It is quite certain that one would find a variety of ideas of being slighted, ridiculed, mocked and otherwise persecuted in the manner of boyhood in his make-up. If he is still talking about himself (many of these patients cease to talk) such ideas of persecution should be more in evidence than merely the effect of the static. If he is insane and still talks much about the static, he doubtless does so in the sense that he calls it to account for a variety of physical or mental complaints with which it obviously can have nothing to do.

Marriage of Cousins

To the Editor:—If the mother and father are first cousins and their children are healthy and intelligent, is there any tendency toward deformity in the children's offspring?

M. R. A., Iowa.

Answer.—No arbitrary rule can be laid down regarding the marriage of cousins. The traits, desirable or undesirable, revealed in the offspring of such matings will depend on the qualities, either latent or expressed, which are already present in the family stock. Such inbreeding, by bringing together like characteristics, tends to perpetuate particular traits more certainly in a given strain. If they are valuable, well and good, but if undesirable—if defect meets defect—the result is often disastrous. The greatest difficulty in deciding on the advisability of marriage between relatives lies in the fact that every individual carries in transmissible form innumerable latent characteristics as well as those which are evident. When two such concealed tendencies are brought together—a situation obviously more likely to occur in cousin marriages than in matings between unrelated persons—they may become fully expressed in the new individual. Mental deficiencies, epilepsy, various insanities, susceptibility to tuberculosis, and many other human ills are of the type which remain dormant in an unsound stock only as long as it is overruled by a normal inheritance from one parent. Since this is true, before consummating a cousin marriage one should carefully scan the family pedigree. There are few families which do not possess some undesirable hereditary traits, and if cousins decide to marry they should do so with knowledge of the extra hazards they are imposing on their children. However, the children of a cousin marriage in which each parent was free from inheritable defect, revealed or latent, are no more likely to have defective children than are any other persons.

Bacillus Acidophilus

To the Editor:—I am told that I need a change of flora in the bowel. Has Bacillus acidophilus ever been successfully transplanted to the human intestine?

Is the combination of acidophilous milk with other products any better than Bacillus acidophilus used alone? Is there any advantage in taking acidophilus milk as an enema, as well as by mouth?

J. L., Southern Pines, N. C.

Answer.—The term Bacillus acidophilus, properly used, includes a small group of closely related bacteria found commonly in the alimentary canal of young children and not infrequently among the microbes of the intestinal tract of adolescents and adults. The presence of these bacteria among the intestinal organ-

isms is an indication either that the diet of the person contains sufficient sugar or starch so that at least some is present quite constantly throughout the greater portion of the entire intestinal tract, or that the person is drinking large amounts of milk in which Bacillus acidophilus has been cultivated before the milk is drunk.

Bacillus acidophilus does not occur outside the alimentary canal under ordinary conditions, hence the origin of cultures is, for the present at least, the human intestinal tract. Cultures thus obtained may be kept alive in milk cultures for long periods of time outside the body. Such cultures may be reintroduced into the alimentary canal through the simple expedient of drinking considerable amounts of milk properly prepared, containing vast numbers of Bacillus acidophilus and no other microbes.

The best and safest procedure to follow for acidophilus implantation is first to be certain that acidophilus implantation is desirable, then to obtain proper cultures of the organism and use them in connection with the proper supportive diet. Failure to obtain proper cultures, or to follow a proper diet, will inevitably lead to failure, through no fault of the method.

The subsequent growth of the bacilli within the intestinal tract depends on two principal factors: the adaptability of the culture to the intestinal environment; the administration of a proper diet to support the microbes, once they are introduced.

Concerning the adaptability of the culture, it is imperative that the organism be rather freshly obtained from the intestinal tract of a normal person; otherwise, the bacteria lose their ability to grow in the intestinal environment and perish nearly as rapidly as they are introduced. Not infrequently commercial cultures have been kept outside the alimentary tract under conditions so different from those they encounter within the alimentary tract that on reintroduction they fail to establish themselves. With respect to diet, the principle to be pursued is very simple and may be summed up by stating that sugar (preferably lactose and dextrin) shall be present at all levels of the alimentary canal practically continuously. Expert advice is desirable and almost always necessary to accomplish this intestinal saturation with the proper kinds of sugars and to accomplish the desired result without distress or harm to the patient. Suitable cultures of Bacillus acidophilus, properly administered and carefully sustained by a proper diet, will grow well in the intestinal tract, where they may perpetuate themselves for long periods of time. Conditions within the alimentary canal which lead to this growth of Bacillus acidophilus are usually favorable for the well-being of the patient, whether young or old.

Locomotor Ataxia

To the Editor:—What is the danger of marrying into a family in which one of the members has locomotor ataxia? Is it a form of or result of syphilis?

Two of the girls have married and each has a perfect child. The affected one is the youngest of a family of six children.

Miss B., Omaha, Nebraska.

Answer.—Locomotor ataxia is a manifestation of syphilis of the spinal cord. The average time of onset is about ten years after the primary infection. The time of onset may be shortened in exceptional cases to one year or lengthened to thirty years.

The dangers of marrying into a family in which one member has syphilis may be divided into two groups: (a) the danger of contracting the disease; (b) the danger of marrying an individual with syphilis.

(a) If the member of the family is an offspring of a parent who has locomotor ataxia, no infection may have occurred provided the offspring was born before the parent was infected or was born a sufficiently long time after the infection took place. Congenital syphilis is always the result of infection of the mother; the father may be infected but unless the mother be first infected the infant will not be. In other words, the father cannot transmit the disease unless he first infects the mother. In general, there would be little danger of contracting the disease from a person afflicted with congenital syphilis.

(b) There are serious risks taken in marrying some one with congenital syphilis. Among these are the possibilities of the development later in life of locomotor ataxia, softening of the brain, blindness and disorders of the liver, kidney, blood vessels and heart. In the case of a woman the possibilities of having a child with signs of syphilitic ancestry must be considered.

The person contemplating marriage should submit to a careful clinical examination and to the necessary laboratory tests.

Protein Required per Day

To the Editor:—I have read in your magazine that 55 grams of protein a day is necessary to protect the heart muscle. Will you kindly put this in the hands of some one who can tell me how much protein 55 grams would be? In one slice of bacon? In a whole egg? Scraped beef? One half squab? Gelatin? Canned corn? Canned tomatoes? One veal chop?

Mrs. J. B. P., Texas.

Answer.—It is necessary to know the weight of each article you mention in order to determine the amount of protein contained. The percentages are as follows:

Bacon	10 per cent.
Whole egg	13 per cent.
Straight beef	22 per cent.
Squab	22 per cent.
Corn	3 per cent.
Canned tomatoes	1 per cent.
Veal	20 per cent.

Gelatin is almost pure protein, but not all in usable form.

Thus if 30 grams of bacon are eaten, the amount of protein taken is 10 per cent., or 3 grams.

Pyelitis

To the Editor:—Are strictures curable and do they cause pyelitis? What is pyelitis? Is pyelitis curable?

Mrs. A. A. T., Maryland.

Answer.—Pyelitis is an inflammation of the pelvis of the kidney. It may be acute or chronic. Some cases are secondary to infections in other parts of the body while others begin in the lower urinary tract and ascend to the kidney. Pyelitis may develop during pregnancy, and obstruction in the urinary tract below the kidney such as strictures of the ureter frequently cause this infection.

Pyelitis is usually curable. Some cases respond to medication and correction of hygiene, while others may require irrigation of the kidney pelvis.

All possible primary causes of the disease should be removed. When pyelitis is caused by a stricture, dilation of the stricture will usually help.

Senility

To the Editor:—Please give some timely guidance about the care of old people—particularly how to keep their bowels open.

J. A., Ontario.

Answer.—Old folks have smaller and less frequent bowel movements than in earlier life. The call for stool is not as urgent or as regular and is frequently neglected. The retained excretion collects in a pouch

in the lower end of the bowel; the pouch becomes stretched and the muscles, through the action of which the bowel is emptied, become weakened. When this happens, bowel movement becomes more difficult and sometimes painful. This is one of the principal causes of constipation in the aged.

If you want to keep the bowels on the job, don't neglect them. When there is a call for bowel movement, attend to it at once. If you take cathartics regularly when they are not needed, the bowels will become accustomed to them and will not act without artificial stimulation. Underdone, smoked and chemically preserved meats, hot breads, dry crackers, tea and cocoa constipate. Constipation due to a single neglect or a single indiscretion in eating can be relieved by a simple laxative. For habitual constipation, prolonged treatment under medical supervision is required; this will include advice on diet and exercise.

Hives

To the Editor:—My wife has been afflicted with welts resembling hives appearing all over the body accompanied by tiny water blisters on the fingers and toes. Both the hives and the blisters itch terribly. The blisters soon change to red, swollen blothches which itch more than ever.

Our physician prescribed soda internally, elimination of foods containing acids and bathing of the itching parts with carbolic acid wash. However, they have been spreading and growing worse for three weeks.

Does the fact that she is six months pregnant alter the case? A. B. B., Tennessee.

Answer.—It would seem that your wife is suffering from ordinary hives, or urticaria, in rather extreme form. Your physician has done the right thing in seeking to find the article of food which is causing this trouble. Among the foods which frequently cause trouble of this sort are shellfish of any kind, tomatoes, raw fruit—such as cantaloup, and some meats, among them veal and pork. It is not believed that pregnancy has anything to do with the actual appearance of the hives, but it may be that a woman is more sensitive to such a disturbance at this time.

Ringworm of the Foot

To the Editor:—What causes ringworm of the foot? What appearance has it on the foot? What will cure it? A. B., New York.

Answer.—Ringworm of the foot is caused by a fungus or mold. In the majority of cases the organism is the same that produces ringworm of the groin, or "gym itch."

There are three types of the disease. The first type is characterized by intense itching, considerable maceration and chafing between the toes; the second type attacks the sole of the foot with deep seated vesicles, or water blisters; the third type is the least common, it causes a thickening of the skin of the palms and soles.

The disease is usually easily cleared up, but tends to recur, especially with the advent of hot weather. The best treatment consists in washing the feet carefully every night, wearing a clean pair of white cotton socks each day (the socks should be boiled when washed). An ointment of salicylic acid and benzoic acid in proper proportions should be prescribed by a physician and should be used under his direction.

"Sugar Treatment" for Catarrh

To the Editor:—Tell me about the "sugar treatment" for catarrh. I read in the paper that a doctor lecturing before a group of specialists said that powdered sugar was the best known cure for catarrh. It was to be snuffed up the nose three times a day. F. G. P., Manitoba.

Answer.—The use of sugar in the nose does not help the so-called catarrh of the nose (this condition is a chronic inflammatory state of the nasal lining membrane often accompanied by an increase in the amount of mucus secreted by that membrane).

There is a form of chronic nasal disease known as atrophic rhinitis, in which foul smelling secretions and crusts are produced. By means of sugars it seems to be possible to aid the growth of certain bacteria or microbes within the nose which crowd out or destroy those putrefactive bacteria which cause the foul odor. The sugars may be used in several ways. A competent physician must be consulted who will ascertain whether or not atrophic rhinitis is present. If he finds this to be the case he will first cleanse the nose thoroughly with a weak alkaline solution and then apply cane sugar syrup or glucose in glycerin on strips of gauze. Later on, finely powdered sugar may be blown into the nose, if the physician directs.

Scar-Like Lines

To the Editor:—A woman of 30, married, notices that along her upper thighs there are long white scar-like lines. Her doctor informs her that these are strained muscles caused by exertion in childbirth. A young lady of 20 has also observed these lines along her shoulders and upper arms; lately these lines seem to be coming down to her lower arms. She knows of no cause for this and seems to be in excellent health. These women are not related. What explanation is there for this condition? I. B., Illinois.

Answer.—White scar-like lines are frequently seen in skin which has at some time been greatly stretched. The most common location is on the abdomen of women who have had children. The overstretching of the skin may also be caused by fluid in the tissues as with general dropsy, and excessive fat. White lines on the thighs or upper arms may be seen following great reduction in weight. If there is no history of an overdistended skin, a skin disease called morphea may be suspected. It is first seen as pinkish patches or bands bordered by a purplish areola. These may atrophy and disappear leaving scar-like marks. A physician who devotes his attention to diseases of the skin would be able to explain the nature of the lines and make suggestions for treatment.

Excessive Flow of Saliva

To the Editor:—My mouth fills frequently with saliva, and as a result I have to swallow often. This swallowing tires my throat, and sometimes gives me great pain. What is the cause of this? Could it be cured?

Is there any cure for neuralgia? I am careful not to sit in a draft or to do any other thing which would give me a cold, yet I have it all the time in my eyes, or in some other part of my body. L. F., Colorado.

Answer.—In the absence of a physical examination, it is impossible for us to determine the cause of the excessive flow of saliva such as is described. The flow might come from one of the sinuses connected with one of the nasal cavities.

Neuralgia is a symptom and may be due to a number of conditions.

The best suggestion we can make is that you consult a competent physician and have yourself carefully examined in order to determine the nature and cause of your symptoms.

Obstructed Tear Duct

To the Editor:—What are the causes, treatment and cure of an obstructed tear duct in a baby?

Mrs. H. L. R. A., Grove City, Pennsylvania.

Answer.—The tear duct is a passage from near the inner corner of the eyes into the nose. It serves to carry into the nose the tears that collect in the eyes. It is usually completely open at the time of birth or a few weeks later, but the lower end, the one in the nose, occasionally does not open spontaneously for several months; it may not open until the baby is a year and a half or two years old. Such an infant will often have tears in the eyes.

Ordinarily there is no harm in this delay unless the upper part of the duct becomes infected. If infection is present the baby should have immediate attention. Ulcers formed as a result of an infection of this type often lead to destruction of the sight or even of the eye.

The treatment is, as a rule, simple; it consists in opening the passage into the nose. The physician usually does this by passing a small probe through the entire length of the duct. One probing is often sufficient to cure.

An answer to this question was printed in the Question and Answer Department in HYGEIA for July, 1925.

"Grand Itch"

To the Editor:—My daughter, 8 years old, contracted "grand itch" about August 15. The first symptom was like a small insect bite on the side of the foot. Water formed in the irritated surface; this spread on the sole of her foot. With the use of the applications from different doctors the irritated parts would dry up temporarily. The foot is literally burned with the medicine but nothing seems to stop the intense itching and burning.

W. A. S., Florida.

Answer.—Your daughter is possibly suffering from a disease known as "creeping eruption," which occurs in the coastal regions of the South Atlantic states, especially the peninsula of Florida, from spring until autumn. It is due to the burrowing of an animal parasite under the skin, and is acquired by contact with damp sand on the beaches and under habitations. It is common among children who go about barefoot and also occurs on the bodies of workmen, such as plumbers, who are obliged to lie flat on the sand beneath houses.

The itching is intense; it is worse at night because the parasite does much of its burrowing at that time. Irritating applications do not kill the parasite, but usually set up a severe secondary irritation of the skin which adds to the discomfort.

You should communicate with the Florida State Board of Health, which is actively cooperating with local physicians in combating this disorder.

Anacin—Soaps—Root Beer Extract

To the Editor:—1. Is Anacin a reputable product? Is it all that it claims to be, or is it harmful and habit forming? 2. Is eating a yeast cake twice daily advisable? Is it effective for clearing pimples, and is it good for constipation? 3. Will you please comment on the following soaps: Cuticura soap for pimples, Palmolive, Imported Laco Castile Soap and Shampoo, Ivory, Rainier soap for skin trouble? Are the two of the above soaps for skin diseases really effective? 4. Is root beer extract used in making root beer for home use a wholesome product to have around the house and to give freely to children?

A. S., Massachusetts.

Answer.—1. Anacin has not been investigated by our department on pharmacy and chemistry. The manufacturers certainly advertise this product in the public press in an objectionable way.

2. There is no particular harm that we know of in eating yeast if one likes it, but it is quite unnecessary for one to take it providing his diet includes a sufficient amount of green vegetables, fruits, milk and butter, all of which contain the needed vitamins. We know of no evidence that it is of any especial value for the conditions you mention.

3. Most of the soaps marketed, particularly those that are uncolored, unscented and bland are safe to use. Occasionally a particular soap will prove irritating to the skin of a certain individual because of some idiosyncrasy. In such case one should avoid using that soap.

4. Root beer, so far as we know, is a flavoring extract of sarsaparilla with syrup prepared in carbonated water. Any of the preparations offered in the shops by the manufacturers of this drink are unobjectionable. A moderate amount of a carbonated drink of this type is not harmful for children, provided it does not interfere with the regular taking of nutritious foods and drinks such as milk at regular meal times.

Preparations for the Hair

To the Editor:—Are preparations which are put on the hair to hold it in place injurious to the hair? If you know of any which do not hurt the hair, would you be kind enough to name them. Should the hair be washed after using a preparation of this type, that is, if it is not used too often?

A. W. H., Indiana.

Answer.—The preparations on the market for keeping the hair in place are essentially scented petrolatum salves. They are apparently harmless. To be of service the preparation must be applied after washing the hair and not before. Washing the hair once weekly and applying enough of the preparation to keep the hair in place until the next washing will do no harm to the hair.

Skin Nourisher

To the Editor:—Is camphor, used alone or mixed with mutton tallow, applied daily on the skin and left on overnight, a nourisher for the skin? Would camphor be too drying, induce wrinkles or injure the face in any way? Would the tallow stimulate the growth of hair?

G. H. A., Virginia.

Answer.—The idea that the skin can be nourished by the application of lotions and ointments is a fallacy which probably has its origin in the advertisements of preparations made to sell. There is no such thing as a skin food. The intact skin can be soothed, stimulated (inflamed), or be made temporarily more pliable by external applications of this nature, but it cannot be fed. There is no physiologic process in the skin of man, unless it is that of respiration, that is so slight as that of absorption. The chief function of the skin is to protect its underlying structures; its construction is such that substances coming in contact with it will not gain entrance to it or to the body, at least in more than negligible amounts. The chief exception to this fact is mercury, which when applied in a normal fat to the skin is partially absorbed, a fact often made use of in the treatment of syphilis.

Camphor applied in this manner would not cause wrinkles or other injury to the skin; there might be some irritation after long continued use. It should be used only when the skin is too dry or chapped in order to soothe the skin.

There is no proof of the belief that tallow or other greases stimulate the growth of hair.

CURRENT HEALTH ITEMS

BABY GETS MOST HEALTH ATTENTION

The baby is the most popular member of the human race. The older generation has to demand its rights, but the baby gets his simply by smiling. After an extensive survey into 86 cities of this country the American Child Health Association, of which Herbert Hoover is president, has come to the conclusion that the infant is the best looked after of any age group. Where steps have been taken here and there to improve the health of mothers and youngsters who can run about by themselves, clinics and educational centers for the welfare of the baby are almost universal.

The survey covered all the cities in the country with populations between 40,000 and 70,000 according to the 1920 census. Thirty-one states were represented.

The results of this widespread attention on the part of communities to the welfare of babies are being revealed in the declining infant death rate. The records for 76 cities show that in the period from 1916 to 1920 there were 99 babies dying out of each thousand born. In the period from 1921 to 1923 the corresponding number was 80. This is a reduction of approximately 20 per cent. There are still marked differences in the rates of cities however, the records for 1923, the year prior to the survey, showing the maximum rate in one of the 86 cities to be 147 deaths per 1,000 births, whereas the lowest rate was 38.

While the association urges no letting up in health work for babies, it does emphasize the desirability of more organized attention to mothers and older children. In the average city of 50,000 it is said that 10 mothers die from childbirth each year. Little progress has been made in lowering this death rate. Increased effort should be devoted to lessen the hazards of maternity. That there is room for improvement in this field of health work is indicated by the fact that in only a little more than half of the 86 cities have clinics been established for the examination and instruction of expectant mothers. In 41 cities no organized prenatal service was found.

NEW HEALTH LEGISLATION

A review of 1925 health legislation in 25 states, by James A. Tobey, was a feature of the *American Journal of Public Health*. The following paragraphs are from the author's summary:

The largest number of new health measures were concerned with food, as 9 states passed 15 such laws. Municipal health legislation of general scope, and not including purely local acts, came next. There were 14 such measures in 6 states, though 8 of them were in New York. Tuberculosis got attention in 6 states, which passed 13 laws on this subject. Nine new vital statistic measures were enacted in 8 states. County health received recognition by 7 measures in 5 states, and communicable-disease control had 6 new measures in the same number of states. Maternity legislation was also passed in 5 states. Other subjects were scattering. It is interesting to note how little venereal disease and child hygiene legislation there was, as compared to former years.

Legislation regarding shellfish pollution was passed in Massachusetts, New York, and New Jersey. Bills to control lye and other caustic substances were successful in Minnesota, New Hampshire and Vermont. New sterilization acts were passed in Idaho and Minnesota, while the existing law in Oregon was amended. Other bills on this subject were introduced in Colorado, Illinois, Maine, New Jersey, Ohio and Rhode Island, but apparently were not successful. Public health nursing came in for attention in 4 states: Kansas, Minnesota, Michigan and New York. A law regulating salt used in the prevention of goiter was passed in Wyoming. Ohio passed a comprehensive amendment to its stream pollution law.

LET DOCTOR SUN KEEP BABY WELL

Old Sol is a good baby doctor. Let him have a chance at your child, says Dr. Martha M. Eliot, director of child hygiene of the U. S. Children's Bureau. Dr. Eliot's slogan is "more sunlight for babies." She is directing a demonstration of the control of rickets in New Haven, Connecticut, in which the U. S. Children's Bureau and the Yale School of Medicine are cooperating. This has proved again the power of the sun in preventing and curing this disease, says Dr. Eliot.

When the sun's rays are analyzed by the physicist, it is found that some of them produce visible light which can be divided by a prism into the well-known spectrum of colors, red, orange, yellow, green, blue, indigo, and violet. It is also found that beyond each end of this visible spectrum there are invisible rays; at the red end, the infra-red rays, which produce heat, at the violet end, the ultraviolet rays and x-rays. It is these ultraviolet rays which have so powerful an effect on living matter, destroying bacteria, healing tuberculosis and rickets. When sunlight shines through window glass, the visible light and the heat rays pass through, but the ultraviolet rays do not penetrate beyond the glass.

Sun baths in the direct sunlight are the simplest method of giving the baby enough ultraviolet light, Dr. Eliot says. Sun baths should be begun when the baby is about three or four weeks old. On this first day the baby's hands should be exposed to the direct sun for a few minutes. Care must be taken not to burn the skin. A slight reddening of the skin each day will gradually tan the baby. Unless the baby is accustomed to the sunlight from exposure indoors, the first sun bath should be for ten or fifteen minutes only. Each day thereafter the exposure to the sun should be increased from three to five minutes, until the baby lies directly in the sun one hour in the morning and one hour in the afternoon. Every few days the amount of body surface exposed should also be increased, at first slowly, but as the spring days grow warmer, more rapidly. After the face and hands have become accustomed to the sunlight, the sleeves may be rolled up one at a time and the arms exposed, beginning with a few minutes and increasing daily. Very soon the stockings may be taken off one at a time for a few minutes each. Gradually the baby becomes accustomed to the sun bath, and by the middle of May or the first of June, sun baths can be given to the whole body. In the heat of July and August care must be taken to give the sun baths in the early morning before ten o'clock or in the afternoon after three o'clock. The head should be protected when the baby is in the hot sun between ten and three o'clock.

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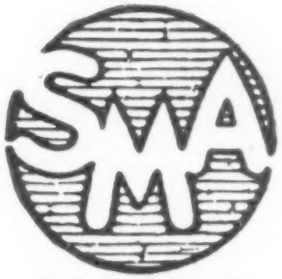

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